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Myriad Genetics Announces Results from a Large 2,000 Patient Clinical Utility Study of Its myRisk® Hereditary Cancer Test at the 53rd Annual Meeting of ASCO

50 Percent of Mutations Were Found in Patients Who Do Not Meet Current Testing Guidelines; 34 Percent of Mutations Were Identified In Unexpected Genes

SALT LAKE CITY, June 02, 2017 (GLOBE NEWSWIRE) -- [Myriad Genetics](#), Inc. (NASDAQ:MYGN), a leader in molecular diagnostics and personalized medicine, today announced results from Study 005, a large 2,000 patient prospective study of the Myriad [myRisk® Hereditary Cancer](#) test, which will be featured in three poster presentations at the 53rd annual meeting of the American Society of Clinical Oncology (ASCO).

The data will be presented by research collaborators from University of Southern California (USC) Norris Comprehensive Cancer Center and Stanford University Cancer Institute. The key findings are that more than 50 percent of the mutations identified were in patients who would not meet current testing guidelines and 34 percent of mutations were identified in unexpected genes, confirming the clinical utility of multi-gene panel testing to improve hereditary cancer-risk assessment.

"We are very excited to present new data on our myRisk Hereditary Cancer test which shows our ongoing commitment to collaborate with leading academic centers and advance the field of hereditary cancer testing," said Johnathan Lancaster, M.D., Ph.D., chief medical officer, Myriad Genetic Laboratories. "Importantly this study demonstrates that more than half of mutations would be missed with current testing guidelines and 34 percent of mutations identified were unexpected and not predicted by personal and/or family history. This study will provide vital data to facilitate review of medical guidelines in light of advances made in next generation sequencing."

The data are highlighted below and abstracts are available at: abstracts.asco.org. Follow Myriad on Twitter via @MyriadGenetics and stay informed about symposium news and updates by using the hashtag #ASCO17.

myRisk Hereditary Cancer Poster Presentations

Title: Performance of Mutation Risk Prediction Models in a Racially Diverse Multi-Gene Panel Testing Cohort.

Presenter: Gregory Idos, M.D., USC Norris Comprehensive Cancer Center.

Date: Monday, June 5, 2017, 1:15 — 4:45 p.m.

Location: Poster 181; Abstract 1523

National Comprehensive Cancer Network (NCCN) guidelines recommend germline genetic testing for patients with a mutation carrier probability (CP) score of five percent or higher. An analysis of data from Study 005 evaluated the percentage of pathogenic mutations in a population of racially diverse patients with a CP score less than five percent. In total 2,000 patients were tested using the myRisk Hereditary Cancer test and 242 were found to have pathogenic mutations. The results showed that more than 50 percent of patients with *BRCA1/2* or mismatch repair (MMR) mutations had a CP score less than five percent. Four percent of patients with *BRCA1/2* mutations did not meet NCCN guidelines for hereditary breast and ovarian cancer syndrome, and 13 percent of patients with MMR mutations did not meet NCCN criteria for Lynch syndrome testing. Importantly, these findings support lowering the guideline-recommended CP threshold for genetic testing to help ensure that more patients can access genetic testing.

Title: Yield of multiplex panel testing exceeds expert opinion and validated prediction models.

Presenter: Gregory Idos, M.D., USC Norris Comprehensive Cancer Center.

Date: Monday, June 5, 2017, 1:15 — 4:45 p.m.

Location: Poster 183; Abstract 1525.

Data from Study 005 were evaluated to determine the diagnostic yield and clinical utility of panel testing using the myRisk Hereditary Cancer 28-gene test in 2,000 patients undergoing hereditary cancer-risk assessment. Approximately 81 percent of patients were women and 40 percent were Hispanic. Differential diagnoses were generated after standard clinical genetics assessment and before genetic testing. Differences between the differential diagnoses and genetic testing results were evaluated to determine the added diagnostic yield of multi-gene panel testing. The results show that 12.1 percent of patients tested positive for a pathogenic mutation. The most common mutations were in *BRCA1* (17 percent) and *BRCA2* (15 percent), *APC* (8 percent), *CHEK2* (7 percent) and *ATM* (7 percent). Importantly, however, 34 percent of the mutations

were not clinically suspected before genetic testing, which demonstrates the significant added value of the myRisk Hereditary Cancer test in hereditary cancer-risk assessment.

Title: Yield of multiplex panel testing exceeds expert opinion and validated prediction models.

Presenter: Allison Kurian, M.D., Stanford University Cancer Institute.

Date: Monday, June 5, 2017, 1:15 — 4:45 p.m.

Location: Poster 234; Abstract 1576.

Study 005 also evaluated the safety of gene panel testing among patients who were undergoing cancer-risk assessment with the myRisk Hereditary Cancer test. The analysis of 2,000 patients found that 12.1 percent of patients had pathogenic mutations. Overall, self-reported preventative surgery rates were low (mastectomy 9.2 percent, hysterectomy 1.6 percent, and oophorectomy 1.8 percent). There was no difference in preventative surgery rates between patients with a variant of uncertain significance (VUS) and mutation negative patients ($p=0.21$). Importantly, most patients never/rarely had thoughts of cancer affecting their daily activities, did not regret genetic testing and wanted to know all the results. Patients with a pathogenic mutation reported higher distress and uncertainty scores than VUS or negative patients, whose distress ($p=0.06$) and uncertainty ($p=0.04$) scores were similar. Relatives of mutation positive patients completed genetic testing more often than VUS or negative patients. This study demonstrated that multi-gene panel testing did not result in inappropriate medical management or increased distress/uncertainty among VUS and negative patients.

"The use of multi-gene panels for the clinical assessment of hereditary cancer risk is rapidly increasing in the era of personalized medicine and it's important that we understand the benefits and risks of genetic testing on patients," said Lancaster. "Study 005 showed that multi-gene panel testing effectively improved hereditary cancer risk assessment and the results did not lead to unwarranted treatment or adverse effects."

About Myriad myRisk[®] Hereditary Cancer

The Myriad myRisk Hereditary Cancer test uses an extensive number of sophisticated technologies and proprietary algorithms to evaluate 28 clinically significant genes associated with eight hereditary cancer sites including: breast, colon, ovarian, endometrial, pancreatic, prostate and gastric cancers and melanoma. The myRisk Hereditary Cancer test offers physicians several distinct advantages over other commercial tests, including:

1. [Unsurpassed lab accuracy:](#)
 - ı 85,000 base pairs with ~100 percent accuracy.
 - ı 856 steps using 23 major technology platforms.
 - ı 100 proprietary software applications.
2. [Industry leading variant classification:](#)
 - ı More than 20 years of investment in research.
 - ı >2.5 million patients tested; 50,000 variants identified.
 - ı Five proprietary methods with 99.5 percent validity.
3. [Exceptional customer service:](#)
 - ı More than 40,000 ordering physicians annually.
 - ı 450 field educators.
 - ı Extensive reimbursement support.
 - ı Lifetime commitment to patients.

About Myriad Genetics

Myriad Genetics Inc., is a leading personalized medicine company dedicated to being a trusted advisor transforming patient lives worldwide with pioneering molecular diagnostics. Myriad discovers and commercializes molecular diagnostic tests that: determine the risk of developing disease, accurately diagnose disease, assess the risk of disease progression, and guide treatment decisions across six major medical specialties where molecular diagnostics can significantly improve patient care and lower healthcare costs. Myriad is focused on three strategic imperatives: transitioning and expanding its hereditary cancer testing markets, diversifying its product portfolio through the introduction of new products and increasing the revenue contribution from international markets. For more information on how Myriad is making a difference, please visit the Company's website: www.myriad.com.

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Safe Harbor Statement

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act

of 1995, including statements related to the presentation of data from three clinical studies at the 2017 American Society of Clinical Oncology annual meeting to be held June 2-6, 2017 in Chicago, Ill; key podium presentations highlighting the performance of the myRisk Hereditary multigene panel test in assessing hereditary cancer risk; the myRisk Hereditary Cancer studies presented at ASCO advancing the field of hereditary cancer testing; the new data providing additional evidence for the safety and efficacy of the myRisk Hereditary Cancer test to help improve and save the lives of patients; and the Company's strategic directives under the caption "About Myriad Genetics." These "forward-looking statements" are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by forward-looking statements. These risks and uncertainties include, but are not limited to: the risk that sales and profit margins of our molecular diagnostic tests and pharmaceutical and clinical services may decline; risks related to our ability to transition from our existing product portfolio to our new tests, including unexpected costs and delays; risks related to decisions or changes in governmental or private insurers' reimbursement levels for our tests or our ability to obtain reimbursement for our new tests at comparable levels to our existing tests; risks related to increased competition and the development of new competing tests and services; the risk that we may be unable to develop or achieve commercial success for additional molecular diagnostic tests and pharmaceutical and clinical services in a timely manner, or at all; the risk that we may not successfully develop new markets for our molecular diagnostic tests and pharmaceutical and clinical services, including our ability to successfully generate revenue outside the United States; the risk that licenses to the technology underlying our molecular diagnostic tests and pharmaceutical and clinical services and any future tests and services are terminated or cannot be maintained on satisfactory terms; risks related to delays or other problems with operating our laboratory testing facilities and our healthcare clinic; risks related to public concern over genetic testing in general or our tests in particular; risks related to regulatory requirements or enforcement in the United States and foreign countries and changes in the structure of the healthcare system or healthcare payment systems; risks related to our ability to obtain new corporate collaborations or licenses and acquire new technologies or businesses on satisfactory terms, if at all; risks related to our ability to successfully integrate and derive benefits from any technologies or businesses that we license or acquire; risks related to our projections about our business, results of operations and financial condition; risks related to the potential market opportunity for our products and services; the risk that we or our licensors may be unable to protect or that third parties will infringe the proprietary technologies underlying our tests; the risk of patent-infringement claims or challenges to the validity of our patents or other intellectual property; risks related to changes in intellectual property laws covering our molecular diagnostic tests and pharmaceutical and clinical services and patents or enforcement in the United States and foreign countries, such as the Supreme Court decision in the lawsuit brought against us by the Association for Molecular Pathology et al; risks of new, changing and competitive technologies and regulations in the United States and internationally; and other factors discussed under the heading "Risk Factors" contained in Item 1A of our most recent Annual Report on Form 10-K for the fiscal year ended June 30, 2016, which has been filed with the Securities and Exchange Commission, as well as any updates to those risk factors filed from time to time in our Quarterly Reports on Form 10-Q or Current Reports on Form 8-K. All information in this press release is as of the date of the release, and Myriad undertakes no duty to update this information unless required by law.

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