The Myriad Advantage

A leading molecular diagnostic company
dedicated to making a difference in patients' lives

MYRIAD®

MYRIAD'S EXTENSIVE EXPERIENCE:

"Myriad was an early pioneer and is currently a global leader in the exciting field of molecular diagnostics"

Myriad has over 20 years' experience in perfecting the analysis of DNA. Approximately 1 million patients have been tested and over 16,000 unique mutations have been identified by Myriad. New mutations are found and variants are classified every day. Myriad has built and maintains a proprietary database that is larger than any other, allowing Myriad to provide fast, accurate answers and to have the lowest Variant of Uncertain Significance rate in the world.

FAST TURNAROUND TIME:

Myriad's laboratory operates under the highest standards of lean efficiency allowing for sample analysis and result reporting much faster than any other laboratory. Myriad provides results in 14 days from the time the specimen analysis is started in >90% of cases. Other laboratories require between 4-11 months for *BRCA1* and *BRCA2* results and up to 6 months for Lynch results.*

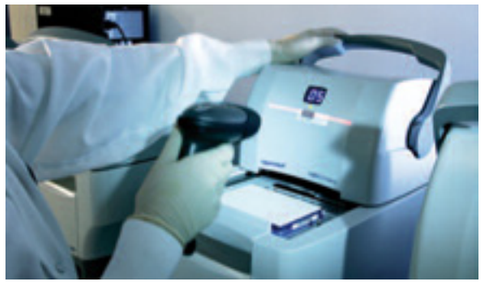
Results in 14 days in>90% of cases

ACCURATE AUTOMATED SAMPLE PROCESSING AND TRACKING SYSTEM:

Myriad uses a fully-automated sequencing process that includes automated sample labeling, bar-code tracking and robots for pipetting. Myriad's computer based bar-code system ensures accurate patient/result association. Each step in the sequence analysis process is managed by Myriad's highly sophisticated proprietary Laboratory Information Management System (LIMS). The LIMS requires that each step in the process meet a complex series of quality control measures before the sample can advance through the system including specialized individuals verifying results. Laboratories with manual systems are more likely to have paperwork mix ups, wrong labeling of tubes of blood and positioning of tubes in racks and other human errors.

INNOVATIVE ASSAY DESIGN:

One example of Myriad's innovative assay is our customized PCR primer design. Myriad's PCR primer design uses up to 300 diverse patient samples to ensure primers do not sit on common polymorphisms that would impact final results. Published primers fail to account for possible polymorphisms under the binding site. This can prevent the primer from binding correctly and amplifying this sequence. A laboratory using such primers could miss a potentially important mutation.

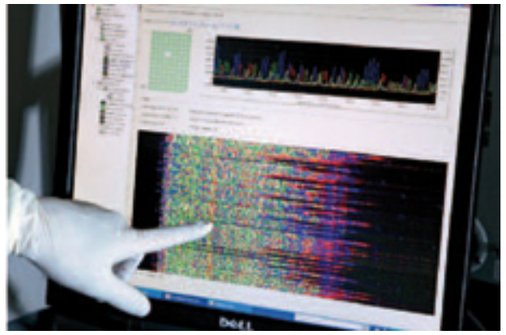


ACCURATE RESULTS:

Myriad uses a superior dye primer chemistry to ensure accurate, easy to read data. For every base read, at least two unique high quality sequence traces are required before calling any result. Superior data quality leads to accurate test results. Myriad has worked for 15 years to develop superior chemistry that provides the highest quality sequence data available today. Myriad's dye primer chemistry yields more accurate data than less expensive dye terminator chemistry.* Inferior dye terminator chemistry leads to poor data quality in difficult sequencing regions, making mutations easy to miss and impacting the ability to provide accurate results. Large rearrangement analysis is performed by MLPA, a robust, reliable technology, with confirmation of all positive results.

CONFIRMATION OF REPORTABLE MUTATIONS:

All results are sent through a rigorous double-blinded data review process. In addition, all reportable mutations are run again from the beginning of the process to confirm the results. Running a test twice is expensive; however, this quality control measure provides the utmost confidence in the result for doctors and patients.



PROPRIETARY DATA ANALYSIS:

Myriad's sophisticated proprietary software assists the reviewer in the analysis of data. All data is blind reviewed by two human analysts and computer checked for concordance. Non-polymorphic variants are verified through a repeated analysis starting from the patient's DNA. Then, a third independent analysis is performed by a supervisor to ensure ALL data for the patient is concordant. These quality control measures combined with Myriad's proprietary data base allow Myriad to readily identify mutations that likely would be missed or be reported as variants of uncertain significance by other laboratories.

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LARGEST MEDICAL SERVICES DEPARTMENT:

Myriad provides invaluable education and support during the entire genetic testing process as a standard part of our service. Myriad employs a full-time staff of highly trained individuals for case consultation, result interpretation and mutation classification.

HIGHEST CERTAINTY OF VARIANT CLASSIFICATION:

Myriad requires a stricter level of evidence to reclassify a Variant of Uncertain Significance (VUS) than other labs adhering to the requirements published by The American College of Medical Genetics and Genomics (ACMG). Myriad has a team of over 25 MDs, PhDs and Genetic Specialists dedicated to variant reclassification. Myriad's ongoing variant reclassification program provides support to healthcare providers and amended reports are issued as soon as a VUS is reclassified. Myriad has the lowest VUS rates globally with a less than 3% VUS rate for *BRCA1/BRCA2* mutations and less than 8% VUS rate for the gene mutations associated with Lynch Syndrome. Other laboratories in Europe report VUS rates of greater than 25% and may not offer amended reports or support to providers or patients.*

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* %VUS, Time To Results for IT/ESP/DE/CH/FR based on Scientia survey of 200 laboratories across Europe, October 2010 France 2010 TAT based on Synthèse de l'activité d'oncogénétique 2010. Collection Rapports & synthèses, ouvrage collectif édité par l'INCa, Boulogne-Billancourt, January 2012.

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