



Myriad's *inSite*™ RNA lab: a specialty tool which has supported our variant classification program for unique cases since 2015

Most mutations do not require RNA studies!

Myriad follows an IRB approved research protocol:



Germline testing performed with initial review



Variant of interest identified using factors such as predicted splicing impact



GC contacts ordering healthcare provider and patient to obtain verbal consent to RNA study



Blood collection kit sent to acquire RNA



RNA data analyzed and reviewed by reclassification committee



Amended report issued if variant is reclassified

From December 2015 to September 2019, Myriad sent out over 69,000 amended reports to patients using tools such as RNA as a part of our robust variant classification program

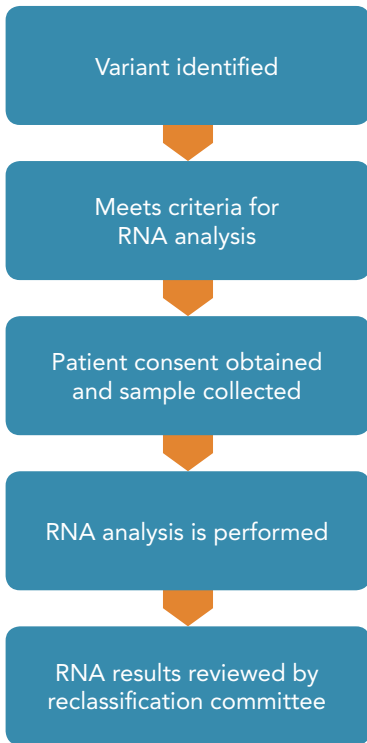
RNA analysis is one of many tools used by Myriad to analyze and classify variants

By identifying variants beyond $-/+5$ in the intron, Myriad has identified pathogenic variants affecting more than 2900 patients. Here are some examples:

Case Study 1

RNA analysis yields a definitive answer

BRCA1 (c.135-8A>G)



Result:

Sufficient data to confidently reclassify as suspected deleterious based on RNA analysis in 2019

Case Study 2

Other tools yield an answer for a splicing variant

MSH2 (c.2459-12A>G)



Result:

Sufficient data to confidently reclassify as suspected deleterious based on Pheno in 2015 without needing RNA lab