Update on Myriad's Classification of the *NBN* gene

Recent studies and a review of Myriad's internal data from nearly 1000 NBN mutation carriers have failed to confirm earlier findings of an increased risk for breast and prostate cancer in women and men with mutations in NBN. The National Comprehensive Network (NCCN) has adjusted their guidance, stating that there is no longer sufficient evidence to support increased surveillance or other medical management changes based on mutations in this gene. Therefore, Myriad no longer classifies any variants in NBN as pathogenic or likely pathogenic for cancer predisposition. The gene will remain on the myRisk panel for the time being, but may be removed at a future date unless new evidence supporting a significant cancer association emerges.

It is important to note that loss of function (inactivating) variants found in NBN are associated with the autosomal recessive condition, Nijmegen Breakage Syndrome (NBS). Individuals with one inactivating NBN variant (heterozygous) are considered carriers of NBS. NBS occurs in individuals with two inactivating NBN variants (one on each copy of the NBN gene). NBS is associated with growth retardation, immunodeficiency, and greatly increased risk for varied types of cancer diagnosed in children. Given that myRisk is indicated for hereditary cancer risk assessment in adults, variant classifications will not be maintained or updated for NBS.