

# Combining germline and somatic testing reveals more.

#### 1 in 4

men with advanced prostate cancer have actionable tumor changes that may inform treatment decisions.<sup>1,2</sup>

#### 1 in 6

men with advanced prostate cancer have a clinically actionable germline variant.<sup>3,4</sup>

### **1** in **10**

germline variants are missed through tumor testing alone.<sup>3,5</sup>

## Men with advanced prostate cancer may qualify for targeted treatments based on their germline and somatic mutation status<sup>6</sup>

Men with germline mutations in genes such as *BRCA1* and *BRCA2* are more prone to developing aggressive prostate cancer and have higher rates of nodal involvement and distant metastasis.<sup>7</sup>

### Patients with localized prostate cancer and BRCA mutation are:4



more likely to die from prostate cancer within 5 years



more likely to develop metastasis within 5 years

At the same time, patients with *BRCA1* or *BRCA2* mutations may respond better to DNA-damaging therapies, including PARP inhibitors—potentially reducing their risk of disease progression or death.<sup>5,6,8</sup>

Genetic testing is essential to identify patients more likely to develop aggressive disease—and those who may benefit from targeted therapies such as PARP inhibitors.<sup>6,7</sup>



### Clinical guidelines support combined testing for patients with prostate cancer

National Comprehensive Cancer Network (NCCN) guidelines recommend:<sup>6</sup>

### **Germline testing**

for all patients with high-risk, very high-risk, regional, or metastatic prostate cancer (or any stage with family history suggestive of hereditary cancer).



### **Somatic tumor testing**

for metastatic prostate cancer to detect DNA repair gene mutations (e.g., *BRCA1*, *BRCA2*, *ATM*, etc.) relevant for PARP inhibitor eligibility and other targeted therapies.

### Combining germline and somatic testing doubles the chances of identifying clinically actionable mutations

### **Tumor-specific**

(somatic) alterations—including mutations in HRR genes such as *BRCA1*, *BRCA2*, and *ATM*—can only be identified through somatic testing.

### **Up to 10%**

of *BRCA* mutations are large rearrangements, which tumor testing alone misses.<sup>9</sup>

### 2x

the chance of identifying clinically actionable mutations when combining germline and somatic testing.<sup>3</sup>

### Myriad Oncology™ offers genomic clarity for high-risk, progressive prostate cancer



Patients with metastatic castrationresistant prostate cancer (mCRPC) experience high rates of somatic and germline mutations.<sup>14</sup>



Myriad's industry-leading variant classification qualifies more patients for targeted therapies and clinical trials.<sup>10</sup>



PARP inhibitor therapy may cut the risk of disease progression or death in patients with prostate cancer and a gBRCA mutation.<sup>2</sup>

### Combined testing with Myriad Oncology™

By ordering both the MyRisk® Hereditary Cancer Test and the Precise Tumor® Molecular Profile Test from Myriad Oncology, you get consolidated, concordant results—avoiding the inconsistencies that arise when multiple labs interpret variants differently. Our integrated approach means clearer reporting, fewer redundancies, and greater confidence in distinguishing inherited from somatic mutations, helping you identify more patients for targeted therapies and clinical trials.



Performed on blood or saliva sample

**The MyRisk test** is a guideline-driven germline test that evaluates clinically actionable genes to help healthcare providers personalize care plans.

- Detects germline *BRCA1* and *BRCA2* pathogenic variants that may influence the use of targeted therapies such as PARP inhibitors<sup>6</sup>
- Delivers the industry's lowest reported VUS rate for BRCA1 and BRCA2 of 0.3% and 0.7%, respectively<sup>11</sup>
- Identifies hereditary cancer syndromes, providing information to facilitate family risk assessment<sup>12</sup>

### Precise Tumor

Molecular Profile Test

Performed on tissue sample

**Precise Tumor** is a somatic test that analyzes over 500 genes, as well as key biomarkers, with broad coverage of guidelines.<sup>13</sup>

- Determines eligibility for FDA-approved therapies and clinical trials
- Includes DNA, RNA, and immuno-oncology biomarkers such as MSI, TMB, and PD-L1 for more actionable findings
- Combines DNA and RNA sequencing to detect more fusions and splice variants compared to DNA-only tests<sup>14-17</sup>

The Precise Tumor test detects key guideline biomarkers for multiple cancer types, plus current and emerging pan-cancer biomarkers, including:

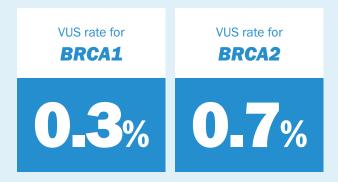
Breast	Ovarian	Endometrial	Colon	Pancreatic	Prostate	Lung	Pan-Cancer
AR BRCA1 BRCA2 ERBB2 (HER2) ESR1 PD-L1 PGR PIK3CA PTEN	BRAF BRCA1 BRCA2 MLH1 MSH2 MSH6 PMS2	ERBB2 ESR1 MLH1 MSH2 MSH6 PMS2 POLE TP53	BRAF ERBB2 KRAS NRAS MLH1 MSH2 MSH6 PMS2	ALK BRAF BRCA1 BRCA2 ERBB2 FGFR2 KRAS NRG1 PALB2 RET ROS1	ATM AR BRCA1 BRCA2 CDK12 CHEK2 FANCA MLH1 MSH2 MSH6 PALB2 PMS2 RAD51D	ATK1 ALK BRAF DDR2 EGFR ERBB2 FGFR1 FGFR2 FGFR3 KRAS MAP2K1 MET NRAS PIK3CA PTEN RET TP53 PD-L1	NTRK1 NTRK2 NTRK3 TMB

### More answers for your patients with industry-leading variant classification

Myriad leads the industry in detecting and classifying known germline variants, including when other labs return a variant of uncertain significance (VUS) result—providing more actionable answers for more patients.



of VUS from other labs were definitively classified by the MyRisk test. 10



The MyRisk test delivers the industry's lowest reported VUS rate for BRCA1 and BRCA2.11

### Myriad Oncology provides combined germline and somatic testing and extensive support services — empowering you to confidently guide every step of the cancer journey



Myriad streamlines your workflow

with comprehensive services, including EMR integration

**Consolidated germline and** 

available within 14 days



**Treatment-focused reporting** 

includes an actionable,



by board-certified genetic counselors



**LEARN MORE** myriad.com/oncology



Germline

**Tumor Genomic** 

tumor genomic results are typically

MyRisk<sup>®</sup>

Precise Tumor™

Molecular Profile Test

Prolaris<sup>®</sup>

Prostate Cancer Prognostic Test

MyChoice®CDx

EndoPredict® Breast Cancer Prognostic Test

References: 1. Robinson D, Van Allen EM, Wu YM, et al. Integrative clinical genomics of advanced prostate cancer. Cell. 2015;161(5):1215-1228. 2. de Bono J, Mateo J, Fizazi K, et al. Olaparib for Metastatic Castration-Resistant Prostate Cancer. N Engl J Med. 2020;382(22):2091-2102. 3. Berchuck JE, Boiarsky D, Silver R, et al. Addition of Germline Testing to Tumor-Only Sequencing Improves Detection of Pathogenic Germline Variants in Men With Advanced Prostate Cancer. JCO Precis Oncol. 2022;6:e2200329. 4. Nicolosi P, Ledet E, Yang S, et al. Prevalence of Germline Variants in Prostate Cancer and Implications for Current Genetic Testing Guidelines. JAMA Oncol. 2019;5(4):523-528. 5. Tung N, Ricker C, Messersmith H, et al. Selection of Germline Genetic Testing Panels in Patients With Cancer. RScO Guideline. J Clin Oncol. 2024;42(21):2599-2615. 6. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) for Prostate Cancer, Version 2.2025 – April 16, 2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. To view the most recent and complete version of the guideline, visit NCCN.org. 7. Castro E, Goh C, Olmos D, et al. Germline BRCA mutations are associated with higher risk of nodal involvement, distant metastasis, and poor survival outcomes in prostate cancer. J Clin Oncol. 2013;31(14):1748-1757. 8. Lee JM, Ledermann JA, Kohn EC. PARP Inhibitors for BRCA1/2 mutation-associated and BRCA-like malignancies. Ann Oncol. 2014;25(1):32-40. 9. Judkins T, Rosenthal E, Arnell C, et al. Clinical significance of large rearrangements in BRCA1 and BRCA2. Cancer. 2012;118(21):5210-5216. 10. Gradishar W, Johnson K, Brown K, Mundt E, Manley S. Clinical Variant Classification: A Comparison of Public Databases and a Commercial Testing Laboratory, Oncologist. 2017;22(7):79-803. 11. Mundt E, McGreevy K, Nix P, Cummings S. Myriad's Multidisciplinary Approach and Consistent Investment in Variant Classification for Clinical Decision Making [White paper]. Myriad Genetics. 2025.

