BREAKTHROUGH
GENOMICS

Inherited Cancer Risk Assessment Test

Genetic Screening

for Risk of Developing Inherited Cancer

HIPAA COMPLIANT

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

CLIA Certified

2 Hughes, #100 Irvine, CA 92618 Phone: 1-949-229-0094 E-mail: info@BTGenomics.com www.BTGenomics.com

BREAKTHROUGH GENOMICS' Inherited Cancer Risk Assessment Test combines advanced Whole Exome Sequencing Data (WES) with advanced AI-powered bioinformatic analysis to provide comprehensive results and fast turnaround times. The test is a critical tool for individuals who may have a genetic predisposition to some of the most common and potentially life-threatening cancers. The test covers 48 of the genes most associated with high and moderate risk for specific cancers and an additional 97 genes where cancer susceptibility is suspected and where research is ongoing.

BREAKTHROUGH GENOMICS' Inherited Cancer Risk Assessment tests is designed to identify individuals at a higher-than-average risk of developing certain cancers because they have inherited genetic variants in specific cancer susceptibility genes.

The genetic variants identified through the test can help doctors:

- Determine a patient's risk for specific cancers and other health conditions
- Develop customized screening and surveillance protocols
- Educate patient's about lifestyle recommendations and clinical interventions that can help to minimize their risk
- Notify close family members who may also be at risk

48

Test Includes:
48 genes most commonly associated with high and moderate risk for specific and well-known cancers

97

97 genes where cancer suspectibility is suspected

BREAKTHROUGH GENOMICS

Inherited Cancer Risk Assessment Test

How are cancer risk genes inherited?

Many genes associated with elevated risk to develop cancer are passed down from parents to their children through different inheritance patterns. Importantly, having a mutation in one of these genes doesn't guarantee the development of cancer but rather increases the risk. For individuals with a strong family history of cancer or early-onset cancers in the family, genetic counseling and testing can provide more insight into potential inherited risks and guide management and surveillance strategies.

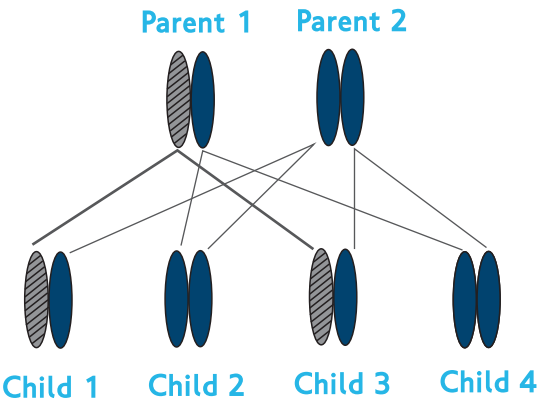
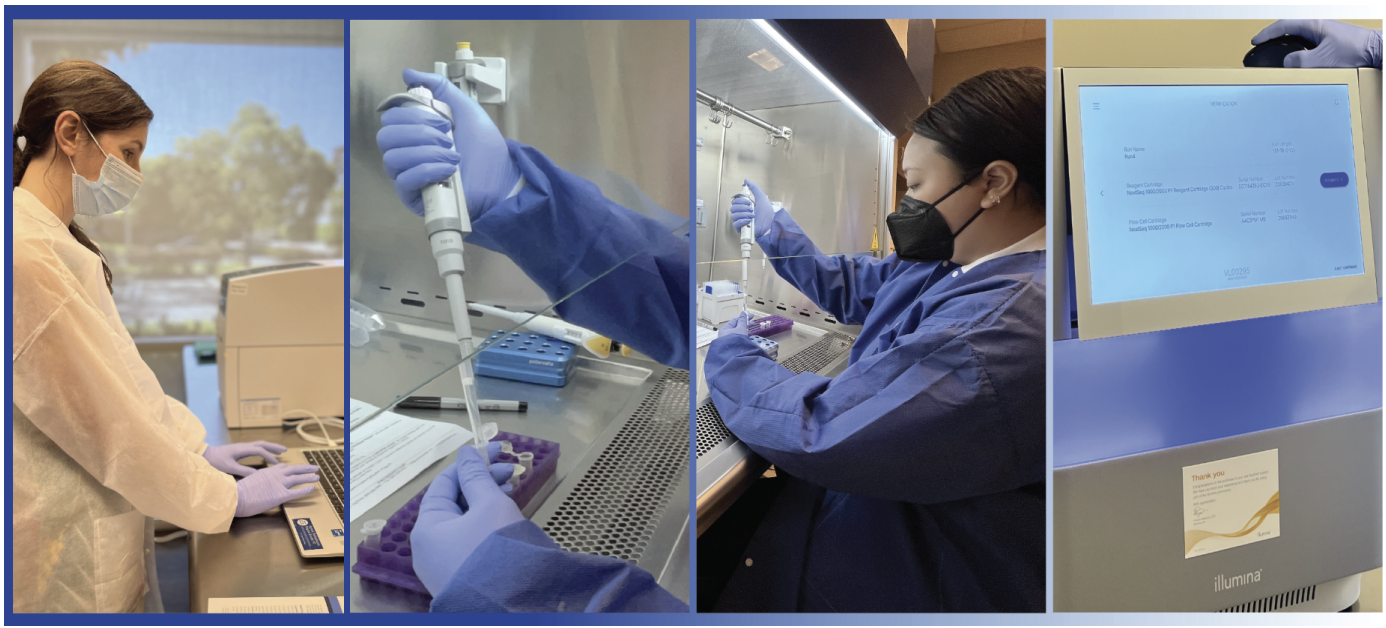


Figure 1 - this diagram shows how cardiovascular conditions can be passed down from parents to their children through an autosomal dominant inheritance pattern.

BREAKTHROUGH GENOMICS Inherited Cancer Risk Assessment Test can pinpoint genetic variants associated with the the following cancers:

- Breast Cancer
- Prostrate Cancer
- Ovarian Cancer
- Pancreatic Cancer
- Kidney Cancer
- Colorectal Cancer
- Thyroid Cancer
- Melanoma
- and many others

All relevant findings are included in clinical reports that are individually -reviewed and signed by a U.S. Board-certified Medical Geneticist



BREAKTHROUGH GENOMICS

Inherited Cancer Risk Assessment Test

Cancer Type	Percentage of cancer ocurrence linked to inheritance of specific genetic variants	Genes Covered
Breast Cancer	5-10%	BRCA1, BRCA2, PALB2, TP53, ATM, CDH1, STK11, PTEN, NF1, and others
Prostrate Cancer	5-10%	BRCA1, BRCA2, HoxB13, MSH2, MSH6, PMS2, and others
Ovarian Cancer	10-15%	BRCA1, BRCA2, HNPCC, MLH1, MSH2, MSH6, PMS2, EPCAM, RAD51C, RAD51D, BRIP1, and others
Pancreatic Cancer	approx. 10%	BRCA1, BRCA2, PALB2, CDKN2A, PRSS1, ATM, CHEK2, STK11, Lynch Syndrome Genes
Colorectal Cancer	5-10%	MUTYH, APC, MLH1, MSH2, MSH6, PMS2, EPCAM, BMPR1A, SMAD, STK11
Kidney Cancer	5-8%	VHL, FLCN, TSC1, TSC2, MET, PTEN, SDHA, SDHB, SDHC, SDHD
Melanoma	5-10%	CDKN2A, CDK4, BAP1, TERT, OT1, ACD, TERF2IP, TERF2, MITF

BREAKTHROUGH GENOMICS

A leader in the clinical interpretation of genomic data. The company provides cutting-edge genetic tests for rare disease diagnosis and other inherited conditions at its CAP and CLIA-certified, advanced clinical lab in Southern California

2 Hughes, #100 Irvine, CA 92618 Phone: 1-949-229-0094 E-mail: info@BTGenomics.com www.BTGenomics.com