

Inherited Cancer Gene Panel

Get the full picture.

Fast and cost-effective Inherited Cancer Panel help determine the cause of inherited cancers.

Hereditary Cancers account for 5-10% of all cancers.
Genetic Testing can aid in diagnosis and identify at-risk patients.

Cancer Diagnosis is complex.

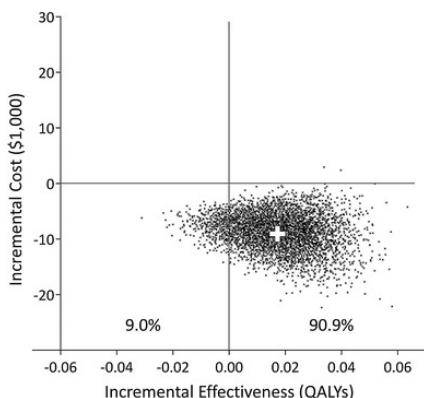
At the molecular level, cancer is caused by mutation(s) in DNA which result in aberrant cell proliferation. Some people inherit mutation(s) in the germline. Approximately 0.3% of the population are carriers of a genetic mutation that has a large effect on cancer risk and these cause about 5–10% of all cancer.

Genetic Testing Provides:

- Diagnosis of clinical condition
- Guidance for disease prognosis
- Identification of at-risk family members
- Implications for therapeutic drugs

Cost Effectiveness

Researchers have found that sequencing gene panels are associated with a greater cost-effectiveness than single gene tests as well as an increased effectiveness. One recent study by researchers at the University of California, San Francisco¹ found gene panel sequencing was almost always associated with lower cost than single gene tests and had a 90.9% chance of having increased Quality-Adjusted Life Years (QALYs) for melanoma patients, as shown below.



Why go through multiple steps?

Once your panel is completed, we want you to have the information you need to diagnose the root cause of various cancer types.

- Other small panels provide only limited information
- An initial inspection of limited target genes may be too narrow and ultimately require additional genetic sequencing
- Serial sequencing leads to delays in diagnosis and cost inefficiency



Inherited Cancer Gene Panel

- The Otogenetics Inherited Cancer Panel sequences 39 genes associated with susceptibility to inherited cancers of various types
- Provides you with a robust and clinically-actionable data so that no further genetic testing is needed

Who should be tested:

- Patient with first degree relative with history of inherited cancers
- Other specifics based on cancer type

State of the Art Technique

- Next Generation Sequencing (NGS) techniques
- Custom oligonucleotide-based target capture
- Illumina HiSeq sequencing of 39 genes
- Coverage of >100 fold achieved at every target base

Reporting Options to Fit Your Needs

Whatever your needs, Otogenetics Corporation offers the expertise to help you get what you need. Our options include:

- Diagnostic Report for patient specific diagnosis
- Bioinformatics Analysis Report for researchers looking for variants based on published literature
- Raw Data (Fastq files) for researchers

Gene List

- | | | | | |
|----------|---------------|----------|---------|----------|
| • APC | • CDK4 | • MET | • NTRK1 | • RAD51C |
| • ATM | • P16(CDKN2A) | • MLH1 | • PALB2 | • RAD51D |
| • BARD1 | • CHEK2 | • MRE11a | • PALLD | • RET |
| • BMPR1A | • ELAC2 | • MSH2 | • PMS2 | • SMAD4 |
| • BRCA1 | • EPCAM | • MSH6 | • PTCH1 | • STK11 |
| • BRCA2 | • FANCC | • MUTYH | • PTEN | • TP53 |
| • BRIP1 | • HRAS1 | • NBN | • RAD50 | • VHL |
| • CDH1 | • MEN1 | • NF1 | • RAD51 | |

Diseases Covered on Inherited Cancer Panel:

Cancers:

- Breast
- Endometrial
- Ovarian
- Colorectal
- Gastric
- Pancreatic
- Prostate
- Renal
- Thyroid/Parathyroid
- Melanoma
- Brain

Syndromes:

- Costello
- Cowden
- Li-Fraumeni
- Lynch
- Nijmegen breakage
- Peutz-Jeghers
- Von Hippel-Lindau
- Watson

Diseases:

- Colorectal adenomatous polyposis
- Familial medullary thyroid cancer
- Familial adenomatous polyposis
- Fanconi anemia
- Hereditary diffuse gastric cancer
- Juvenile polyposis
- Melanoma-pancreatic cancer
- Multiple endocrine neoplasia type 1 and type 2
- Neurofibromatosis type 1
- Nevoid basal cell carcinoma
- Osteosarcoma



Test Name:	Order #:
Inherited Cancer Gene Panel	Oto-InhCa
Turn-Around-Time:	
Approximately ~6 weeks	
Specimen Requirement:	
<ul style="list-style-type: none"> • 2-5ml whole blood in EDTA or citric collection tubes • Saliva in saliva collection kit • Genomic DNA 	

References:

1. Li Y et al. Mol Diagn Ther. 2015