CONNECTGENE
Genomics Oncology

Unlock the Power of Genomics

BRCA GENE TESTING

Approximately 7-10% of breast and ovarian cancers are hereditary. *BRCA1* & *BRCA2* tumor suppressor genes account for a high number of these cases, but it is known that other hereditary cancer related genes are associated with the risk of developing breast and/or ovarian cancer. The *BRCA* Plus panel assesses 12 genes known to harbour mutations related to breast and/or ovarian cancer. The BRCA Plus analysis may identify the underlying genetic mutations that are unique to your cancer. This can help provide information on potential therapeutics, resistance to therapeutics, clinical trials and new treatments you may be able to access.

What is *BRCA1* & *BRCA2* Testing?

Around 5 – 10 % of breast cancers result from a mutation in the *BRCA1* and *BRCA2* genes. *BRCA* mutations increase the risk of developing breast and ovarian cancer, and patients with *BRCA* mutations tend to develop breast cancers at a younger age. Mutations in the *BRCA* genes can be sporadic, but they are often germline, meaning they are in all cells in your body and may be passed down to your children. Testing can be performed on a buccal swab sample which may indicate if there is a germline mutation in the *BRCA* gene. If the mutation is germline, family members can be tested to see if they have inherited the mutation, allowing earlier detection and prevention.

BRCA Plus testing can be performed off somatic samples (tissue) in patient currently diagnosed with cancer or germline samples (blood) samples in patients who are at an elevated risk of developing cancer.

Why is it important to have genomic testing if I have a family history of cancer?

Testing for Inherited cancer syndromes informs clinical decision making and may assist in the prevention of adverse health outcomes. *BRCA1* and *BRCA2* are part of complexes involved in DNA repair using homologous recombination. Women with an abnormal *BRCA1* or *BRCA2* gene have up to an 80% risk of developing breast cancer by age 90 and up to 55% risk of developing ovarian cancer. In addition to breast cancer, mutations in the *BRCA1/2* gene also increase the risk of ovarian, fallopian tube, pancreatic cancer, gastric cancer and prostate cancers.

If there is a family history of breast cancer, other members of your family can undergo genomics testing to see if they are a carrier of germline *BRCA* mutations. If they are identified as a carrier of the mutations, this can enable them to:

- Start cancer screening tests earlier
- Get screened for that type of cancer more often
- Get screening tests that are used only for people known to be at increased cancer risk
- Watch yourself closely for signs or symptoms of that kind of cancer
- Learn about options to help reduce the risk of certain types of cancer, such as drugs or surgery

How do I organise Testing?

1. Contact us for the test request form. When ready, return your completed form
2. We arrange for your blood or biopsy tissue sample to be sent to the laboratory.
3. We receive your tissue sample for testing.
4. Our testing partner completes the requested testing in their Brisbane laboratory.
5. Your personalised report is sent to nominated health care professional

Phone/WhatsApp: +852 6476 7844 | Email: info@connectgene.com | Web: www.cggenomicsoncology.com