

Date: 17 June 2025
To: All BC Cancer
From: Stephen Yip, M.D., Ph.D., FRCPC
Medical director – Clinical Cancer Genomics

RE: Launch of OncoPanel based testing of HR+/HER2- breast cancer cases at CGL

This letter is to inform you that effective **July 1st, 2025**, the Cancer Genetics and Genomics Laboratory (CGL) at BC Cancer will be offering “OncoPanel” hybrid capture NGS- based testing of HR+/HER2- breast cancer cases, facilitating the on-label use of capivasertib (Truqap™). This offering leverages the years of experience CGL has with the OncoPanel, easing the implementation process. The OncoPanel test enables the accurate assessment of genomic variants (SNVs and small indels only) in 73 genes with known clinical relevance in a variety of solid tumors.

It should be noted that OncoPanel-based testing is anticipated to be but a short-term solution as the GSC/CGL plans to transition the more comprehensive TSO500™ panel, enabling the detection of SNVs, small indels, CNVs, and gene fusion events within an expanded target space.

What is detected by the OncoPanel?

The OncoPanel test enables the accurate assessment of genomic variants (SNVs and small indels only) in 73 genes, including *AKT1*, *PIK3CA* and *PTEN*. This panel does not detect gross deletions and duplications (CNVs) which is a known mechanism of *PTEN* inactivation which reduces the sensitivity of this assay to *PTEN* mutations.

Further details of the methods and the genes and regions covered by the OncoPanel can be found on the CGL website <https://cancergeneticslab.ca/genes/oncopanel/>

Who qualifies for testing?

Individuals with hormone receptor-positive, HER2-negative breast cancer with activating mutations in *AKT1* or *PIK3CA*, or inactivating mutations in *PTEN* are eligible for treatment with capivasertib.

How is the test ordered?

OncoPanel based testing of HR+/ HER2- breast cancer cases can be ordered using the Solid Tumour Requisition – Molecular ([link](#)).

Fax the completed CGL requisition to the histology lab holding the FFPE block - the histology lab will send the FFPE block and requisition to BC Cancer Pathology.

Sunquest code: OMGTB

CST Cerner test name: Oncopanel Molecular Genetic Test Tissue

What sample is required?

FFPE Tissue Block: will be sectioned or cored depending on tumour distribution

- Minimum tumour content is 20%

More detailed guidelines on FFPE sample requirements can be found at www.cancergeneticslab.ca/guidelines/specimens/.

Where and how does the sample get sent?

Further information: <https://cancergeneticslab.ca/guidelines/specimens/#Shipping>

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Ship at room temperature

How will the test be reported?

Variants are interpreted and categorized based on their clinical impact using AMP/ASCO/CAP guidelines (PMID: 27993330)¹ as follows:

Tier I: variants with strong clinical significance (level A and B evidence)

- Tier II: variants with potential clinical significance (level C and D evidence)
- Tier IIIA: variant with uncertain clinical significance
- Tier IIIB: variants with uncertain function

Reporting of Tier IIIB variants will be limited to those in genes relevant to breast cancer oncogenesis and/or treatment. While assessed, Tier IV variants are not typically reported.

What is the expected turn-around-time (TAT) for results?

The anticipated TAT for OncoPanel testing is 17-21 days from receipt of the sample in CGL.

How can I access the clinical report results for my patient?

The clinical report will be:

- Generated using the CGL SHIRE platform which is used for all CGL reporting
- Uploaded electronically to CAIS, CST Cerner, and CareConnect
- For CareConnect information on how to view the report or to request access, [Click here](#)
 - To discontinue receipt of the mailed paper copy, [Complete this form](#)

Questions

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Website: cancergeneticslab.ca

References

1. Li MM, Datto M, Duncavage EJ, Kulkarni S, Lindeman NI, Roy S, Tsimberidou AM, Vnencak-Jones CL, Wolff DJ, Younes A, Nikiforova MN. Standards and Guidelines for the Interpretation and Reporting of Sequence Variants in Cancer: A Joint Consensus Recommendation of the Association for Molecular Pathology, American Society of Clinical Oncology, and College of American Pathologists. J Mol Diagn. 2017 Jan;19(1):4-23. doi: 10.1016/j.jmoldx.2016.10.002. PMID: 27993330; PMCID: PMC5707196.