

Molecular and Advanced Pathology Core

Bringing Spatial “Omics” From
Glass to Clinic

About us

MAPcore

Faculty of Medicine
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We acknowledge that our place of work is within the unceded land of the Coast Salish peoples, including the Squamish, Musqueam, Stó:lō, Tsleil-Waututh, and Stz'uminus Nations.

MAPcore

About Us

Established in 2020, the Molecular and Advanced Pathology Core (MAPcore) at the University of British Columbia bridges life sciences with clinical expertise to advance disease prevention and treatment. Affiliated with UBC's Department of Pathology & Laboratory Medicine, Vancouver Coastal Health Research Institute, and BC Cancer Research Institute, we specialize in translating 'omics' research into clinical applications.

Our Services

📍 Histology

Coring: Extraction of tissue cores from FFPE blocks for molecular assays.

Scrolling: Obtaining sections from the face of FFPE blocks at specified thicknesses.

Microtomy: Precision sectioning of paraffin-embedded or frozen tissues.

Tissue Microarray (TMA) Construction: Assembling multiple tissue samples into a single paraffin block for high-throughput analysis.

Laser Capture Microdissection: Isolating specific cells or regions from tissue sections for detailed molecular studies.

📍 Histochemistry

Hematoxylin and Eosin (H&E) Staining: Standard staining for tissue morphology assessment.

Single Biomarker DAB Immunohistochemistry (IHC): Automated IHC for detection of specific proteins using DAB chromogen.

Chromogenic Multiplex IHC: Detection of up to four biomarkers plus hematoxylin using various chromogens.

Opal Fluorescence Multiplex IHC: Simultaneous detection of up to seven biomarkers using tyramide signal amplification.

In-situ Hybridization (RNAscope): Detection of RNA targets using automated assays.

📍 Digital Spatial Profiling

NanoString GeoMx® Digital Spatial Profiler: High-resolution spatial analysis of proteins and RNA in tissue sections, compatible with FFPE and frozen samples.

Our Equipment

📍 NanoString GeoMx®

Facilitates spatial profiling with high multiplexing capacity.

📍 Zeiss Axio Scan.Z1

Automated slide scanner for brightfield and fluorescence imaging with capacity for 100 slides.

📍 Leica Aperio AT2

High-throughput scanning with a 400-slide capacity and multiple magnification options.

📍 Leica BOND RX

Automated staining for single and multiplex IHC and ISH with customizable protocols.

📍 Leica LCM LMD7

Contact-free, gravity-based collection of microdissected samples to preserve integrity.

📍 Leica RM2235 Microtome

Precision sectioning for routine histology.

Contact Us

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Submit a service request at our website:

<https://mapcore.med.ubc.ca/>