

# COMPREHENSIVE TISSUE-BASED BIOMARKER DISCOVERY & VALIDATION

Axela Biosciences delivers automated, high-precision, reproducible solutions in IHC/IF/ISH, multiplex staining, digital slide imaging, and spatial proteomics/genomics, supporting projects from discovery through clinical development, including:

- Chromogenic IHC and Multiplex IHC services NeoPATH Pro Autostainer
- Fluorescence IF/ISH and Multiplex IF/ISH Services NeoPATH Pro Autostainer
- Automated Digital Scanning SLIDEVIEW VS200 Whole Slide Imaging Scanner
- Spatial-proteomics/genomics NanoString GeoMx Digital Spatial Profiler
- Al Assisted Analysis of Spatial Proteomics/Genomics Data
- CLIA-Certified Clinical Testing



### **APPLICATIONS**

# From Cells to Systems: Unlocking Spatial Biology for Precision Medicine

#### **Tumor Microenvironment Analysis**

Map immune and stromal cells and their interactions in cancer tissue

#### **Biomarker Discovery & Validation**

Identify and confirm predictive or prognostic biomarkers in spatial context

#### Immuno-Oncology Research

Profile immune checkpoint expression and cellcell interactions for therapy response

#### **Drug Development & Clinical Trials**

Assess target engagement, drug efficacy, and mechanism of action

#### **Companion Diagnostics Development**

Enable personalized medicine through single/multiplexed biomarker panels

#### Disease Pathogenesis Studies

Explore complex tissue architecture in cancer, autoimmune, neurodegenerative, and infectious diseases

#### NEUROSCIENCE **ONCOLOGY IMMUNOLOGY PATHOLOGY** Profile tumor in situ immune Contextually High-plex analysis of heterogeneity. repertoire profile neural and expression in normal microenvironment, characterization stem cells and diseased tissues and cancer stem cells Immune Characterization of Biomarker discovery response neurological and characterization Identify tumor profiling of disease pathology Monitor therapy infiltrating normal and lymphocytes (TILs) diseased states response

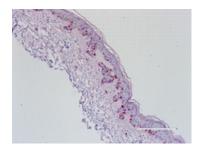
## ADVANCED IHC/IF/ISH AND MULTIPLEX STAINING PLATFORM

# Flexibility Meets Precision in Automated IHC/IF/ISH with NeoPATH Pro Autostainer

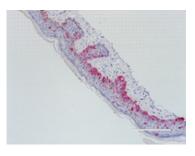
- High-throughput automated IHC/IF/ISH staining with consistent reproducibility
- Flexible multiplex IHC/IF/ISH capabilities for simultaneous biomarker detection
- Optimized for oncology, immuno-oncology & pathology testing
- High-quality staining for precise tissue analysis
- Scalable workflow suited for both clinical and translational research



42-Slide Capacity | Trusted Antibodies | Validated Reagents |
Simultaneous/Sequential Multiplex Protocols



SOX10, Melanoma, 20X



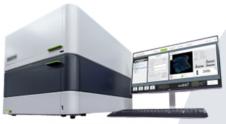
MART1, Melanoma, 20X

### ADVANCED SPATIAL-OMICS PLATFORM

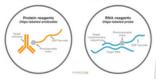
# From Regions to Molecules: Spatially Resolved Multi-omics with GeoMx<sup>®</sup> Digital Spatial Profiler (DSP)

The GeoMx DSP Platform by NanoString: a versatile spatial solution for drug discovery and translational research

- Simultaneous in situ spatial analysis of proteins and mRNAs from the same tissue section
- Pre-designed on-shelf panels for analysis of human and mouse whole transcriptome and hundreds of proteins
- Focused regions of interest (ROI) shed light on the true biology of each sample
- ROIs from different sections of tumor and microenvironment are analyzed individually to provide a clear picture of what is happening biologically
- · Explore biology with more targets and analytes than ever before, getting publishable data faster
- · Comprehensive end-to-end service with expertise in IHC, mIHC, pathology, sequencing, nCounter and GeoMx

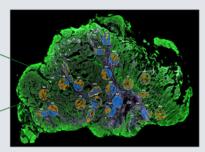


High-Plex Mixtures of Proprietary Reagents



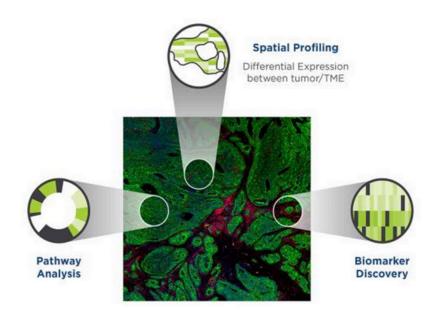
GeoMx DSP offers spatial information of protein or gene expression in tumor tissues, to quantitate interaction of immune cells, tumor cells and other cells.

4-1BB, CD11c, CD14, CD163, CD19, CD27, CD3, CD56, CD66b, CD68, CD8A, CD20, CD3, CD4, CD45, CD45R, CD



### **INTEGRATED SPATIAL BIOLOGY SERVICES**

Comprehensive Spatial Biology Solutions Combining Advanced IHC/IF/ISH, Multiplex Staining, and Cutting-Edge Spatial-Omics Profiling for Precision Medicine and Biomarker Discovery



### Why Axela

- ✓ End-to-end workflow: sample prep → staining → imaging → spatial-profiling → data analysis
- ✓ Expertise in oncology, immunology & translational biology
- ✓ Customizable panels for research or clinical studies
- ✓ Multi-omics integration for deep biological insights