

Spatial Gene & Protein Expression

UNLOCK THE POTENTIAL OF YOUR TISSUE SAMPLE

AcelaBio applies its specialty histology expertise to deliver GCP/GCLP compliant end-to-end spatial gene and protein expression workflows, leveraging 10X Genomics Visium and Xenium platforms.

Our seamless, high-quality process from wet lab to dry lab translates your samples into meaningful biomarker insights.

SAMPLE FLEXIBILITY

Analyze **FFPE** or **frozen tissue** from any tissue type

FULL TISSUE COVERAGE

No need to **identify** regions of interest

CUSTOMIZABLE WORKFLOW

H&E and/or **IHC/IF** in combination with spatial data

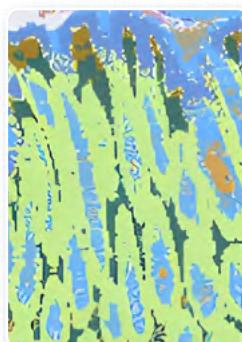
OUR SPATIAL BIOLOGY ENABLED LAB

Visium v2



Profile the whole transcriptome with morphological context

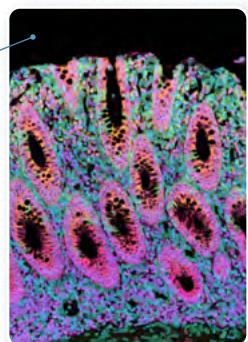
Visium HD



High-plex *in situ* RNA and Protein profiling with sub-cellular resolution

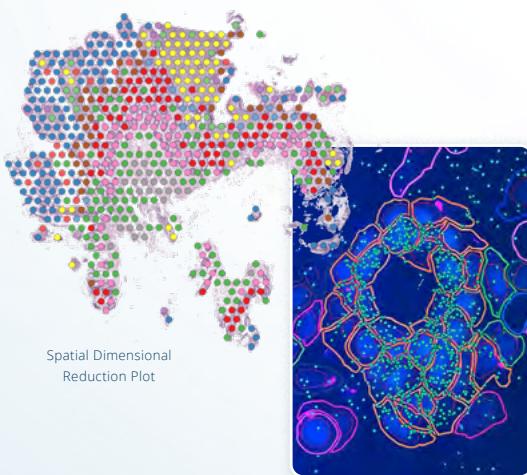
Map the whole transcriptome at single-cell scale resolution

Xenium



DATA ANALYSIS SOLUTIONS

Data analysis visualizations and interpretation of 10x spatial experiments is a multi-step process that utilizes state-of-the-art bioinformatic & machine-learning approaches to **dive deep into your data**.



Basic Analysis

Quality control and pre-processing to ensure data meets our quality standards and is ready to proceed through our validated pipelines

Standard Analysis

- Classify cell clusters
- Identify & visualize cell type composition & cluster

Explore spatial gene and protein data customized to your research questions:

- Specific gene expression changes
- Spatially map the most highly regulated genes
- Pathway enrichment analysis

Deluxe Analysis

- Cell or tissue feature annotations
- Exploration of cellular niches
- Integration with curated datasets



State-of-the-art CAP/CLIA-accredited specialty histopathology laboratory



Seamless end-to-end wet-lab-to-dry-lab workflows



Development and validation of assays for novel or existing protein/mRNA biomarkers

100,000+ tissue samples analyzed

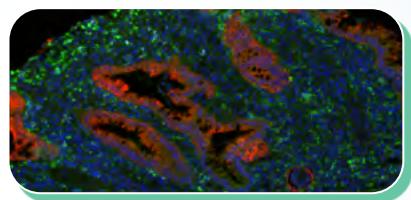
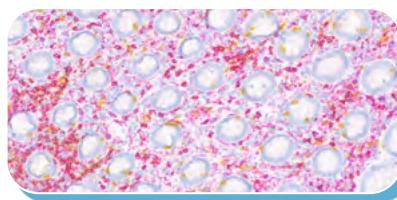
95+

clinical trials

IMMUNOSTAINING

PRE-ANALYTICAL SERVICES

- Sample logistics, accessioning, storage & archiving
- Tissue processing, embedding, sectioning



ASSAY DEVELOPMENT

- Select high-quality antibodies, control tissue/cells & experimental conditions
- US-board-certified pathologist oversight
- Assay precision, specificity & reproducibility

WHOLE SLIDE IMAGING

- 510(k) approved scanner
- Brightfield and IF

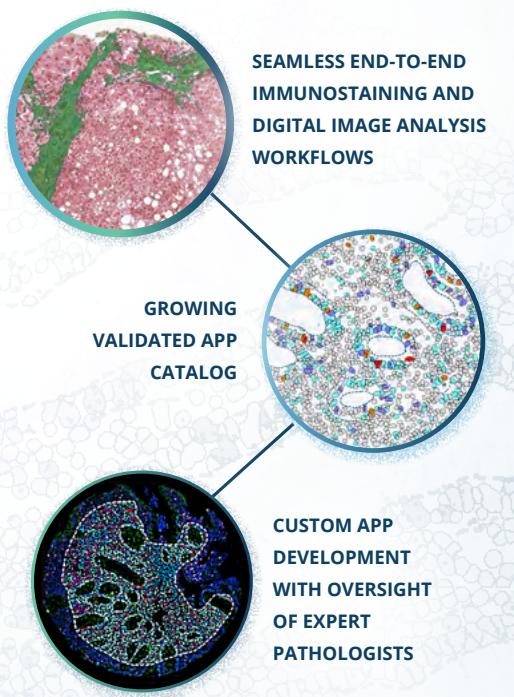
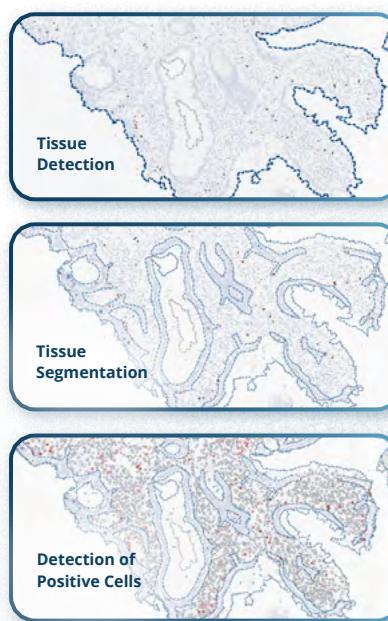
IMMUNOSTAINING ASSAYS

- **Stains:** Hematoxylin & eosin (H&E), Masson trichrome, Picosirius red
- **Immunohistochemistry:** Single or chromogenic multiplex (up to 4 markers)
- **Immunofluorescence:** Single or ultra-sensitive mIF (up to 8 markers)
- In situ hybridization (ISH) of mRNA
- Suite of validated single and multiplexed assays available
- Roche Discovery Ultra and BenchMark Ultra Plus for immunoassays

DIGITAL IMAGE ANALYSIS

Using advanced **AI and deep-learning-based digital image analysis**, we address complex scientific questions by developing APPs to **quantify IHC/IF tissue biomarkers**

- Validated DIA workflows from image QC to quantitative outputs
- Generate reproducible data on whole slide images of histopathological tissue sections



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