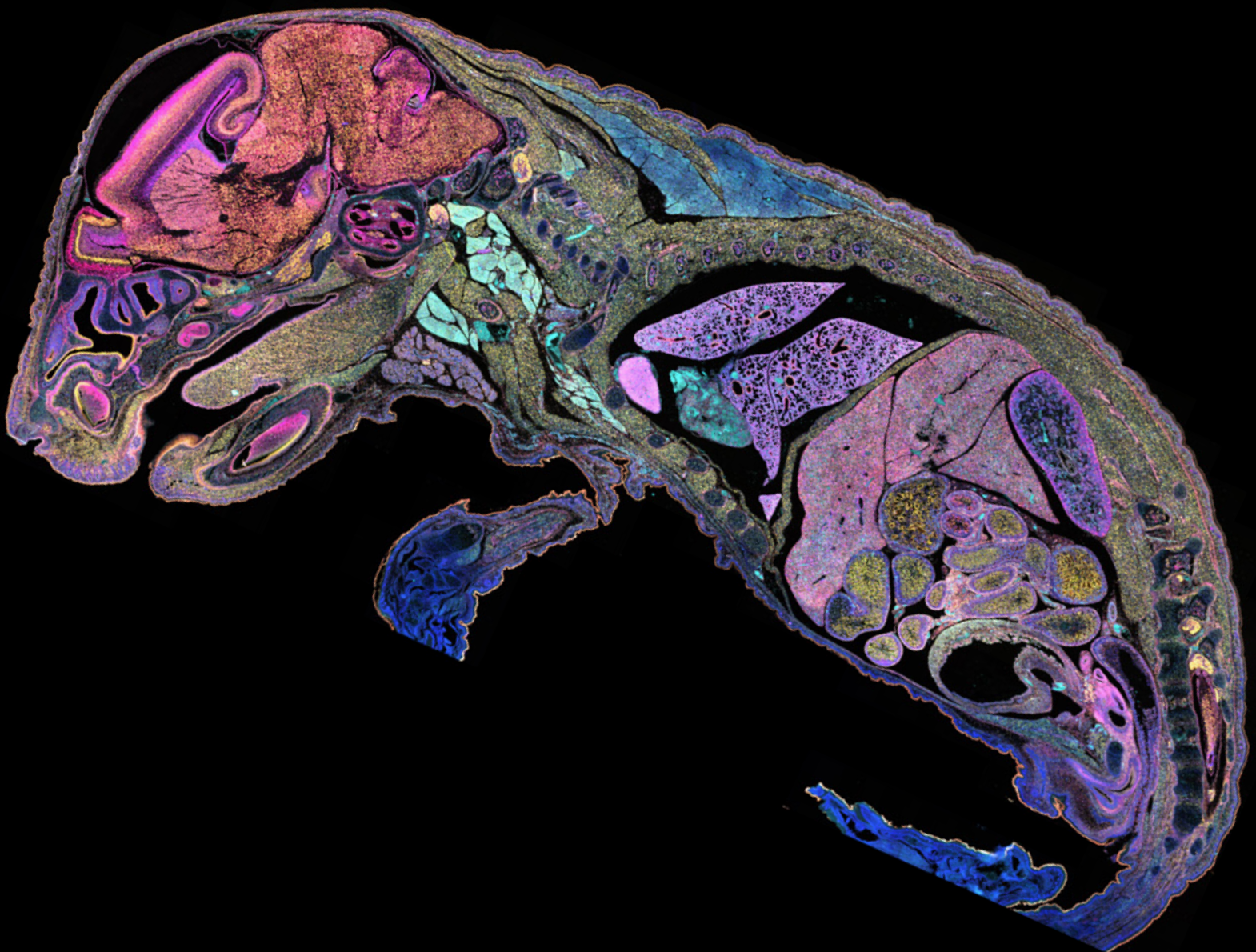


# Spatial Biology Service

Precision in every pixel with AMSBIO,  
Your Spatial Biology Profiling Partner



Spatial biology profiling merges spatial and molecular profiling technologies, allowing for the simultaneous analysis of RNA and protein distribution within tissues. This cutting-edge approach combines high-plex protein data, whole transcriptome information, and morphological details within a single tissue section, providing you with a comprehensive understanding of tissue organization and function.

At AMSBIO, we offer a fully customizable process with expert guidance throughout your research journey, ensuring a seamless experience from start to finish. With a diverse range of tissues, three powerful spatial biology profiling technologies to choose from, and dedicated specialists available at every stage, partner with AMSBIO and unlock the potential for groundbreaking discoveries.

## Fully customizable service

- Extensive biorepository for tissue selection
- In-house sample preparation and histochemistry
- Expert guidance for experimental design
- Nanostring GeoMx<sup>®</sup> DSP, 10x Visium<sup>®</sup>, and 10x Xenium<sup>®</sup> Analyzer platforms
- NGS data experts for insightful data interpretation

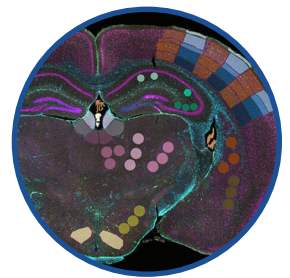
## WORKFLOW



## SPATIAL BIOLOGY MULTIOMICS PROFILING SERVICES

### Nanostring GeoMx<sup>®</sup> DSP

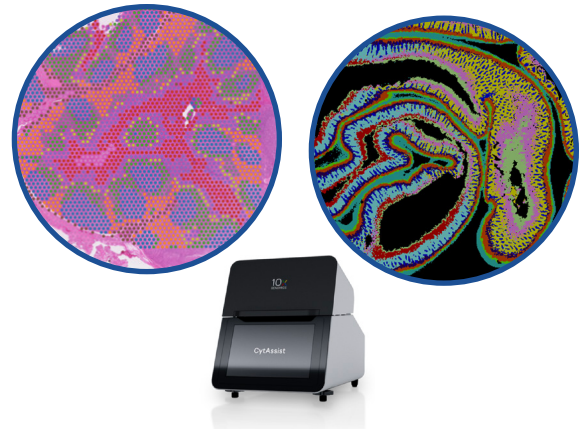
Nanostring GeoMx<sup>®</sup> DSP allows you to simultaneously detect and visualize multiple RNA and protein analytes within tissue sections. It combines high-resolution imaging with automated data analysis to generate comprehensive spatial maps of molecules within tissue.



- Biology driven profiling
- High sensitivity
- High-plex multiomics
- Reproducibility
- Scalability
- Customizable

## 10x Visium®

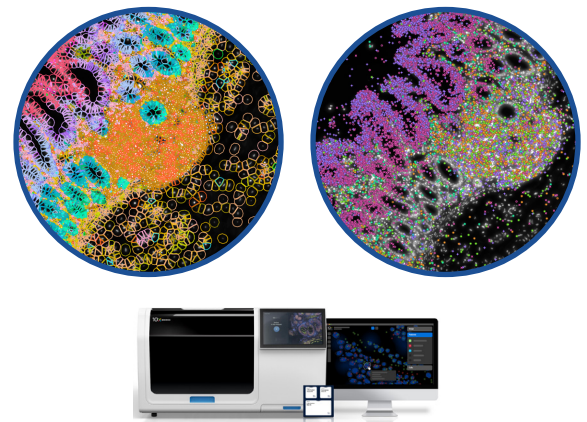
10x Visium®, the ideal solution for discovery and comprehensive tissue analysis, enables simultaneous examination of protein, total mRNA, and morphology in the same tissue section using microfluidic chip technology.



- Unravel biological architecture
- Molecular profiling of frozen and fixed tissue sections
- Analyze RNA + protein + histology all in one
- Flexible assay set-up

## 10x Xenium® Analyzer

10x Xenium® Analyzer includes a single-cell RNA sequencing platform, facilitating exploration of biological systems at an unprecedented level. This high-throughput, single-cell resolution technology can reveal cell types, cell-cell interactions, and track cell fate decisions with remarkable precision. Moreover, 10x Xenium® Analyzer seamlessly integrates with 10x Visium®, offering a comprehensive end-to-end solution for visualizing, quantifying, and analysing gene expression and proteins in tissue samples. With a diverse range of gene panels, including customisable options, and the 10x Xenium® Analyzer for high-throughput analysis, you can gain invaluable insights into your genes of interest.



- Easily find biology that matters
- Fully explore transcript density at any scale
- Seamlessly compare gene expression across tissue regions
- Flexible tissue compatibility - fresh frozen or FFPE
- Simultaneously collect and process data

## NGS data analysis service

To make the most of your multiomic data exploration, AMSBIO offers a dedicated team of in-house data analysts. Our NGS experts are here to help you unlock the full potential of your data, transforming it into meaningful insights that drive your discoveries forward.

# NANOSTRING GEOMX<sup>®</sup> DSP, 10x VISIUM<sup>®</sup>, OR 10x XENIUM<sup>®</sup> ANALYZER?

		NanoString GeoMx <sup>®</sup> DSP	10x Visium <sup>®</sup>	10x Xenium <sup>®</sup> Analyzer
Tissue type	FFPE	✓	✓	✓
	Fresh Frozen	✓	✓	✓
	Fixed Frozen	✓	✓	✗
	TMA	✓	✗	✗
	Prequalification necessary	✗	✓	✗
	Format	Blocks, or standard slides (freshly cut)	Blocks, glass slides, or custom 10x slides	Blocks or 10x custom slides
	Size	Up to 40 x 17 mm	FF: 6.5 x 6.5 mm (4 per slide) FFPE: 6.5 x 6.5 mm or 11 x 11 mm (2 per slide)	Up to 12 x 24 mm
Analysis	RNA	✓	✓	✓
	Protein	✓	✓	✓
	Detection	Hybridization	Poly(A) enrichment	Hybridization
	Region	Specified by user	Whole gridded tissue section	Specified by user
	Resolution	600 µm to single cell	Spot size = 55 µm, 1-10 cells/spot	Subcellular
Visualisation	Immunofluorescence	✗	✓	✓ (Post-Xenium processing)
	H&E	✗	✓	✓ (Post-Xenium processing)
	Four-color fluorescence	✓	✗	✗
Data	Downstream analysis	R Packages	Loupe Browser Visualization Software	Xenium Browser Visualization Software

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