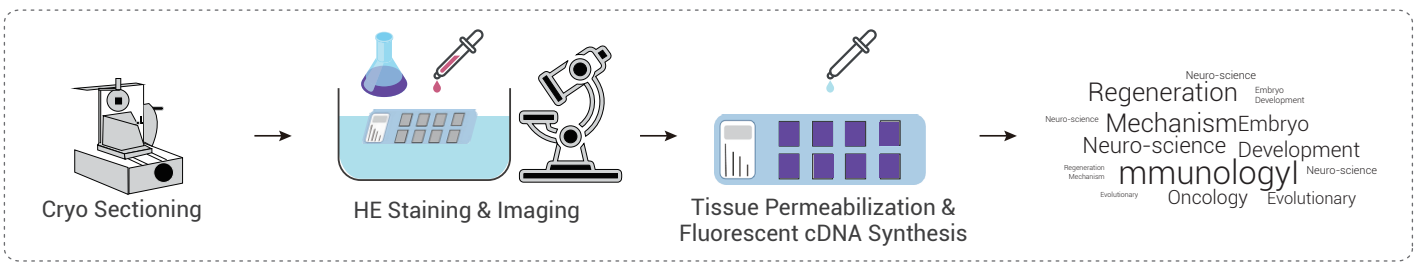
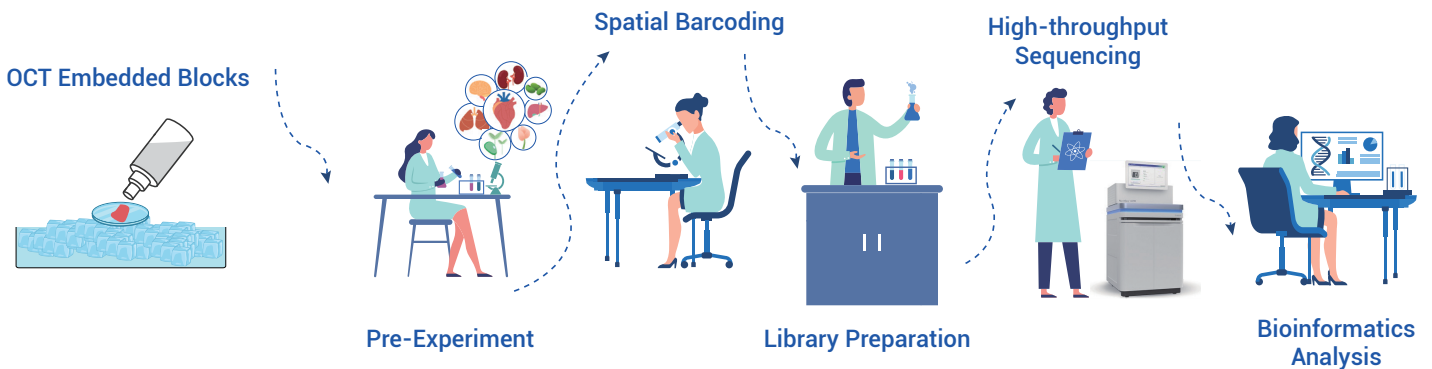


# Spatial Transcriptome Sequencing

Spatial organization of cells plays vital role in various biological processes, such as immune infiltration, embryo development, etc. Spatial transcriptome sequencing, which indicates gene expression profiling while retaining information of spatial position, has provide great insights into transcriptome-level tissue architecture. BMKGENE provides comprehensive, one-stop spatial transcriptome sequencing service from samples to biological insights.



## Service Workflow



## Bioinformatics

### Data Quality Control

- Data output and quality assessment
- Gene detection per spot
- Tissue coverage

### Intra-Sample Analysis

- Gene detection
- Spot clustering
- Differential analysis among clusters

### Inter-Sample Analysis

- Data combination
- Spot clustering of joint data
- Differential analysis between groups

## Service Advantages

- One-stop service integrates all experience and skill based steps, including cryo-sectioning, staining, tissue optimization, spatial barcoding, library preparation, sequencing and bioinformatics.
- Highly skilled technical group with experience in over 250 tissue types and 100+ species of animals and plants.
- Continuous real-time project updates with comprehensive monitoring of experimental progress.
- Comprehensive standard bioinformatics package with 29 analyses, 100+ high-quality figures.
- Customized data analysis and visualization available for different research requests.

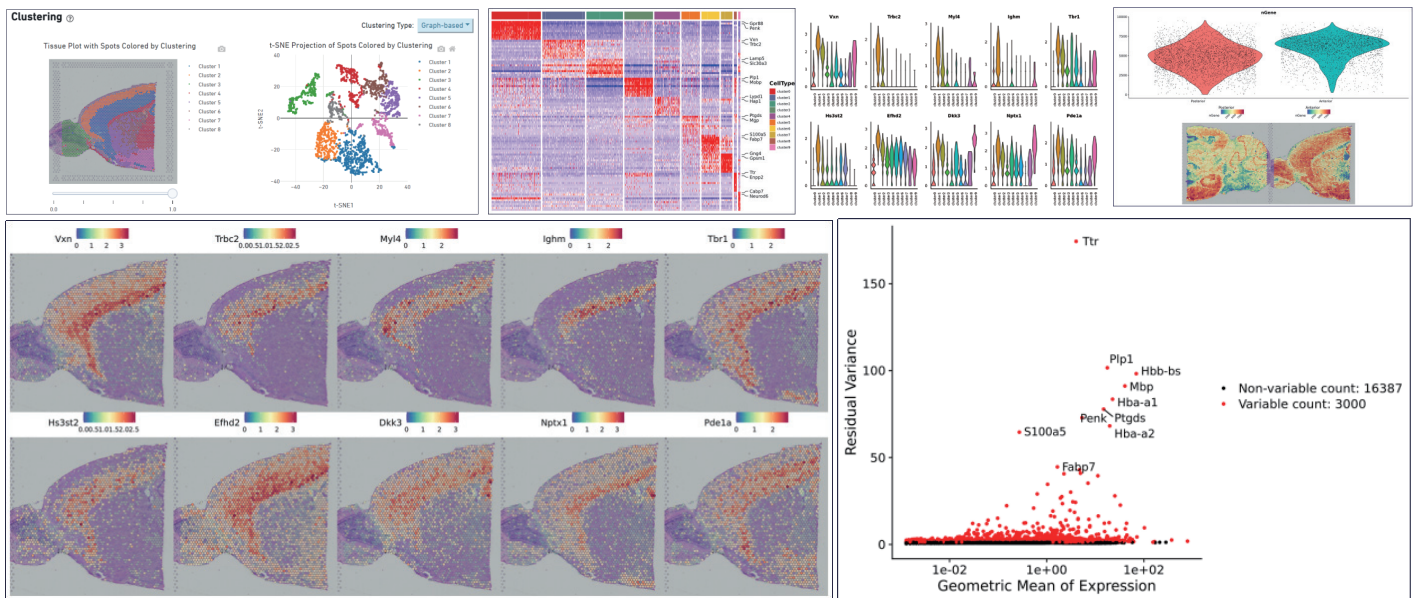
## Service Specifications

| Library              | Platform                  | Recommended Data Amount |
|----------------------|---------------------------|-------------------------|
| Spatial mRNA library | 10X Visium Illumina PE150 | 60 Gb/sample            |

## Sample Requirements

| Sample                    | Size                              | Number  |
|---------------------------|-----------------------------------|---|
| OCT embedded cryo samples | < 6.5 x 6.5 x 6.5 mm <sup>3</sup> | Two blocks per sample:<br>Block 1: Experiment<br>Block 2: Back-up |

## Demo Results



## Featured Publications

| Year | Journal            | Title  |
|------|--------------------|--|
| 2024 | Neuro-Oncology     | Integrating single-cell and spatial transcriptomics reveals endoplasmic reticulum stress-related CAF subpopulations associated with chordoma progression |
| 2024 | Advanced Science   | Molecular Lineages and Spatial Distributions of Subplate Neurons in the Human Fetal Cerebral Cortex  |
| 2024 | Cell Proliferation | Rack1 - mediated ferroptosis affects hindgut development in rats with anorectal malformations: Spatial transcriptome insights                            |



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### Global Locations

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