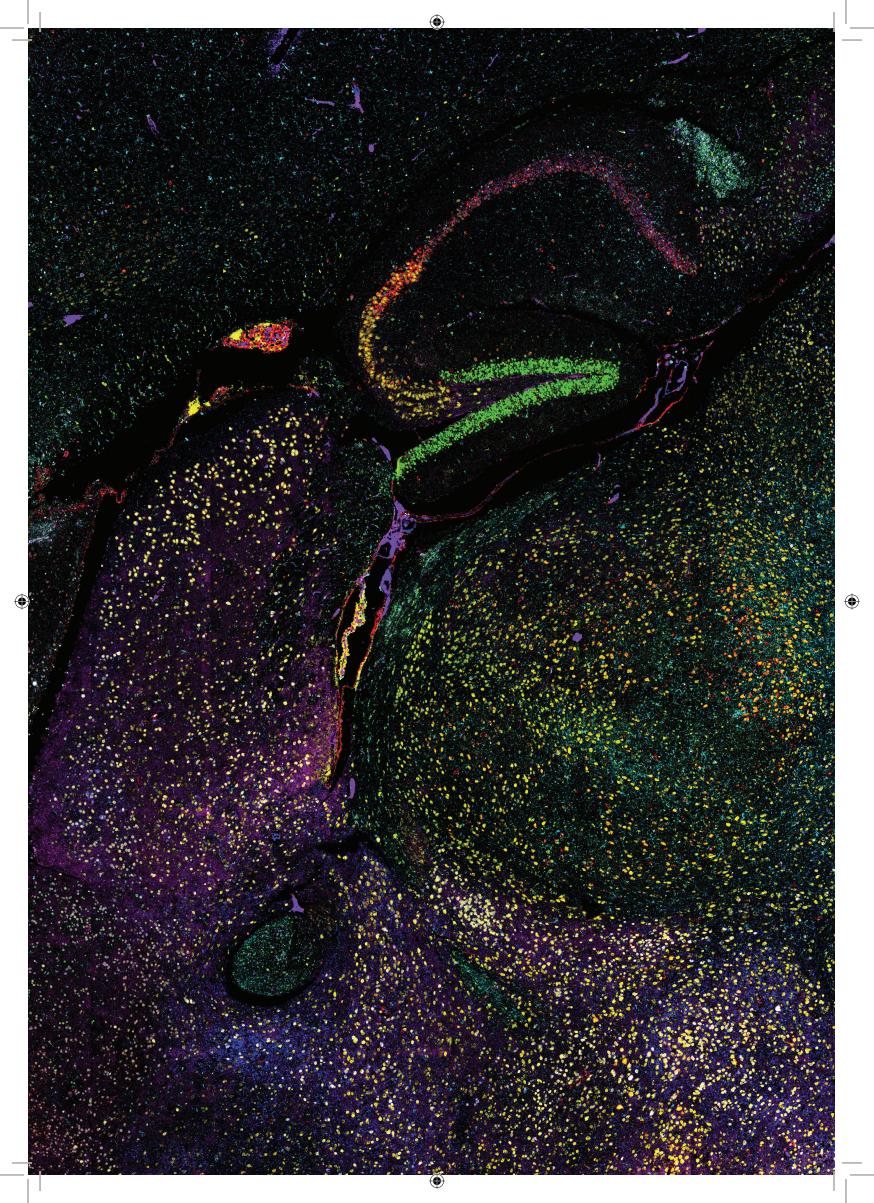


### **BRUKER SPATIAL BIOLOGY**

# **CosMx<sup>™</sup> Spatial Molecular Imager**

True Single-Cell In Situ Solution

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.





# CosMx<sup>™</sup> SMI

## Elevate your single-cell research

Understanding different cell types, how cells behave with one another, and their purpose enhances our ability to interpret biology and disease. The CosMx Spatial Molecular Imager (SMI) allows researchers to comprehensively map single cells in their native environment and extract deeper biological insights from a single experiment.

### **An Unmatched Single-Cell Spatial Solution**

#### **High Plex Panels**

More cell types, cell states and biological pathways

#### **Multiomic**

One system for RNA and protein

#### **Any Sample Type**

Real-world FFPE, fresh frozen, TMA, organoids and more

#### **High Resolution**

Single-cell analysis at subcellular resolution

#### Simple & Flexible

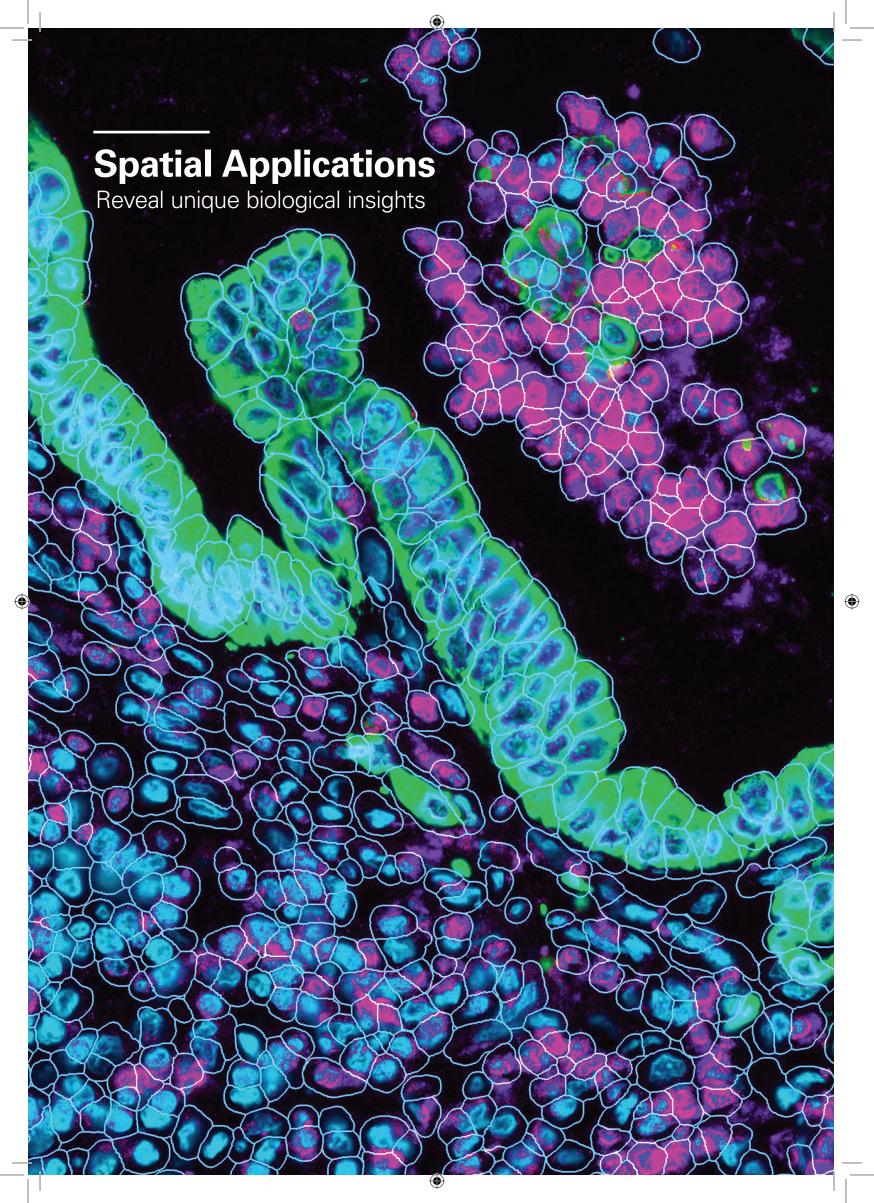
Easy-to-use workflow with customizable panels and scan area



#### **AtoMx™ Spatial Informatics Platform**

An integrated informatics solution, AtoMx SIP enables scalable data analysis, storage, and sharing

High Plex Panels More cell types, cell **Cell Type Map High Plex Imaging** CosMx SMI delivers ultra high states and biological pathways of Skin Cancer plex technology to image and quantify up to 6000 plex RNA and up to 76 Protein Targets at single-cell resolution, enabling cell typing and pathway analysis to resolve cell state, cell function, cell-cell interactions and highly informative cell signaling. CosMx Human 6K Discovery Panel Gene Coverage **Immune Cell Response** System Discovery of monocytes responding to tumors and differentiating into macrophages 91-100%



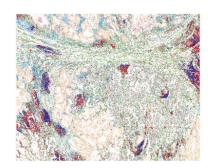


Single-cell data generated from intact fresh frozen (FF) or FFPE tissues using the CosMx Spatial Molecular Imager reveals deeper biological insights from a single experiment.



#### **Cell Atlasing / Cell Typing**

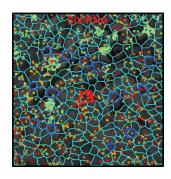
Discover and map cell types using expression profiles of known RNA and protein targets

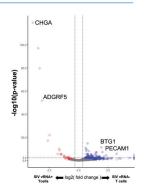


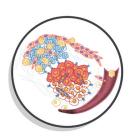


#### **Biomarker Discovery**

Reveal differential gene expression and pathways in the same cell types depending on their spatial location

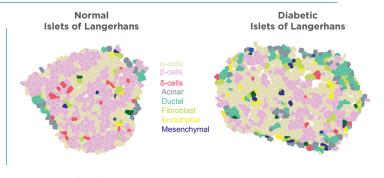


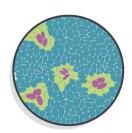




**Disease State** 

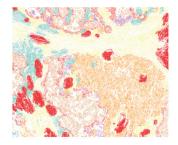
Visualize and quantify molecular (RNA / protein) and cellular organizational changes in a tissue





#### **Tissue Microenvironment**

Understand cellular neighborhoods by examining individual cells and their interacting neighboring cells

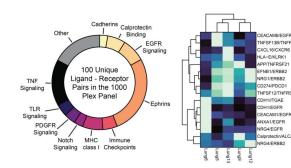


- plasmablast-enriched stroma
- stroma
- lymphoid structure
  tumor-stroma boundary
- immune
- myeloid-enriched stroma
- tumor interior
- neutrophils
- macrophagesplastmablasts



#### **Ligand-Receptor Interaction**

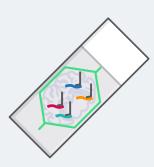
Analyze expression and interactions of up to 100 classic ligand-receptor pairs between interacting cells



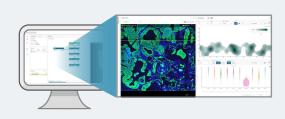


# **Easy to Use**

### **Complete Sample to Insight Solution**









2

3

#### **Simple Sample Preparation**

A fast and easy-to-use workflow

#### **Automated Imaging**

Robust single molecule In Situ hybridization chemistry

#### **Integrated Data Analysis**

Comprehensive visualization and data analysis, scalable compute and storage with easy data sharing

#### **Panel Assays**

Flexible options to cover your research needs















CosMx™ 6K Discovery Panel CosMx<sup>™</sup> Human Universal Cell Characterization Panel (RNA, 1000 Plex) CosMx™ Mouse Neuroscience Panel (RNA, 1000 Plex) CosMx™ Mouse Neuroscience Panel (Protein, 68 Plex) CosMx™ Human Immunooncology Panel (Protein, 64 Plex) CosMx™ Custom Protein Add-on Panel CosMx<sup>™</sup> Custom RNA Barcoding Add-on Panel



<sup>6</sup> FOR RESEARCH USE ONLY. Not for use in diagnostic procedures.



# From Data to Insight



# AtoMx<sup>™</sup> Spatial Informatics Platform

A complete cloudbased spatial biology informatics solution for fast and secure analysis and visualization of CosMx data anytime, anywhere.



#### **NanoString Spatial Platform Integration**

Stream image and count files seamlessly from CosMx SMI into AtoMx SIP.



#### **Data Management**

Securely store, manage, and export spatial multiomics data around the globe.



#### **Analyze & Visualize Spatial Data**

Perform secondary analysis and tertiary analysis with preconfigured modules and data analysis pipelines.



#### **Custom Analysis**

Edit pre-built modules and pipelines OR build custom modules and pipelines to analyze spatial data to fit your needs.\*



#### Security & Compliance

Single Sign-On authentication backed by standard-compliant data encryption for data-in-transit and data-at-rest through Amazon Web Services.

#### **AtoMx Analysis Modules**

Foundational Analysis Modules	Spatial Analysis Modules	Analysis Pipeline	Custom Analysis Modules
QC	Ligand-Receptor	Foundational – RNA	User-Defined
Normalization	Nearest Neighbor	Foundational – Protein	
UMAP	Spatial Network		
Cell Typing	Cell Proximity Analysis		
PCA	Differential Expression		
Spatial Clustering			

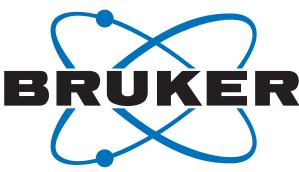
<sup>\*</sup> R scripts supported for CosMx SMI





## Instrument Information

Product	Description	Catalog Number
CosMx Spatial Molecular Imager	CosMx Spatial Molecular Imager Instrument. Includes 1 year manufacturers warranty.	CMX-SMI-1Y
	CosMx Spatial Molecular Imager Instrument. Includes 1 year manufacturers warranty and 1 year service contract.	CMX-SMI-2Y
	CosMx Spatial Molecular Imager Instrument. Includes 1 year manufacturers warranty and 2 year service contract.	CMX-SMI-3Y
	CosMx Spatial Molecular Imager Instrument. Includes 1 year manufacturers warranty and 3 year service contract.	CMX-SMI-4Y
	CosMx Spatial Molecular Imager Instrument. Includes 1 year manufacturers warranty and 4 year service contract.	CMX-SMI-5Y





Bruker Spatial Biology | For more information, visit nanostring.com/cosmx

Bruker Spatial Biology, Inc.

530 Fairview Avenue North Seattle, Washington 98109

T (888) 358-6266 F (206) 378-6288

Sales Contacts

emeasales.bsb@bruker.com Other Regions

apacsales.bsb@bruker.com globalsales.bsb@bruker.com

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