

# 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**

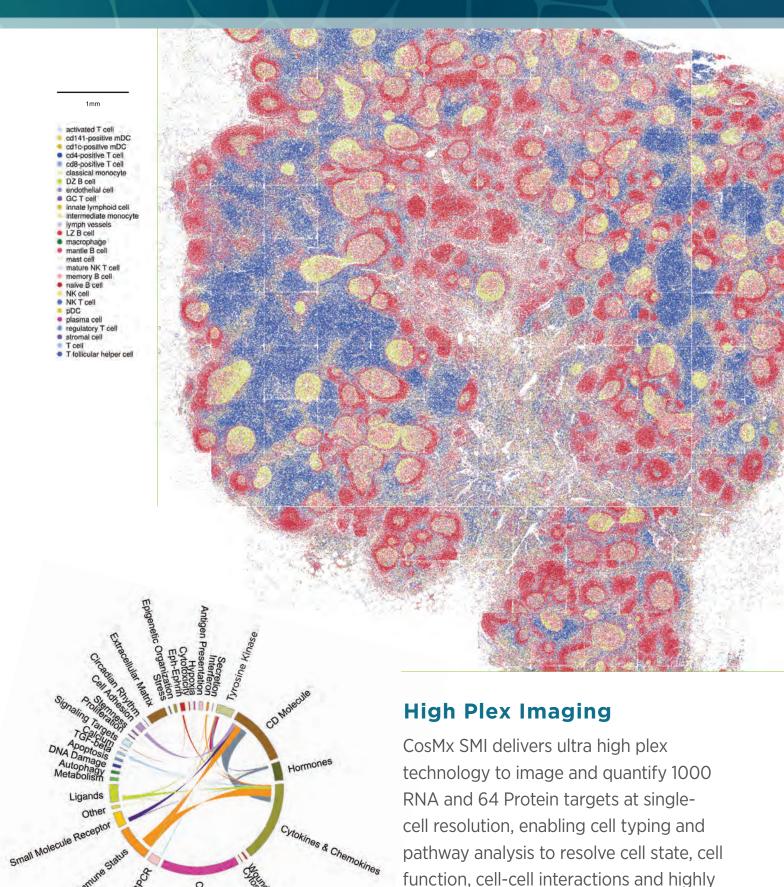
Single-cell analysis at subcellular resolution

#### **Simple and Flexible**

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

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

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



informative cell signaling.

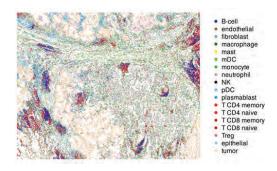
# **Spatial Applications**

Reveal unique biological insights

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.

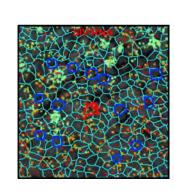


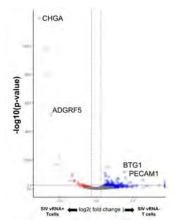
Cell Atlasing / Cell Typing
Discover and map cell
types using expression
profiles of known RNA
and protein targets





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

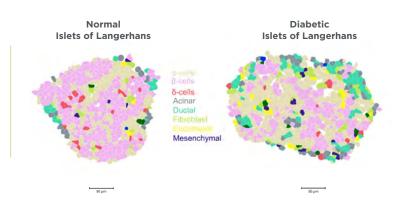


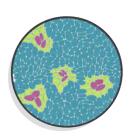




# **Disease State** Visualize and quantify

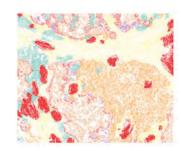
molecular (RNA / protein) and cellular organizational changes in a tissue





#### **Tissue Microenvironment**

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

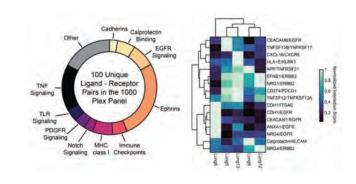


- plasmablast-enriched stroma
- stroma lymphoid structure
- tumor-stroma boundary
- immune
- myeloid-enriched stroma tumor interior
- neutrophils
- macrophages
- plastmablasts



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

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

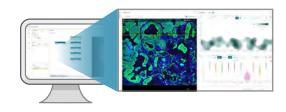


# **Easy to Use**

## **Complete Sample to Insight Solution**







1

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™ Custom Solutions Panel



CosMx™ Human Universal Cell Characterization Panel (RNA, 1000 Plex)



CosMx™ Human Immuno-oncology Panel (RNA, 100 Plex)



CosMx™ Mouse Neuroscience Panel (RNA, 1000 Plex)



CosMx™ Human Immuno-oncology Panel (Protein, 64 Plex)

# From Data to Insight

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

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

#### **Complete**

Integrated spatial informatics solution for CosMx SMI and GeoMx\* DSP.

#### Scalable

Cloud-based platform hosted on AWS enables scalable compute and storage to fit experimental needs.

#### **Simple**

No coding or scripting experience necessary to use prebuilt analysis pipelines.

#### Secure

PCI-DSS, HIPAA/HITECH, FedRAMP, GDPR, FIPS 140-2, and NIST 800-171 compliant.

**Flexible** Modify existing piplines or modules and create custom modules to analyze data.

# **AtoMx Analysis Modules**

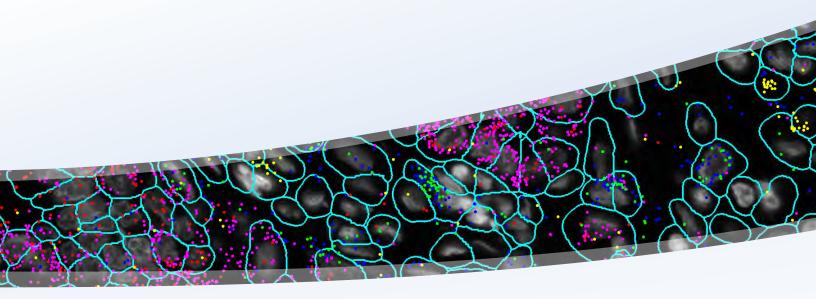


Foundational Analysis Modules	Spatial Analysis Modules	Analysis Pipeline	Custom Analysis Modules
QC	Ligand-Receptor	Foundational – RNA	User-Defined
Normalization	Nearest Neighbor	Foundational – Protein	
UMAP	Spatial Network		
Cell Typing	Cell Proximity Analysis		
PCA	Differential Expression		
Spatial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



#### **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



### For more information, please visit nanostring.com

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