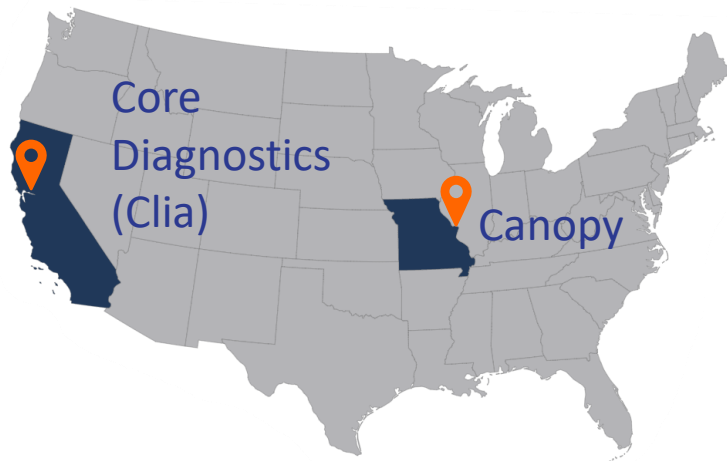


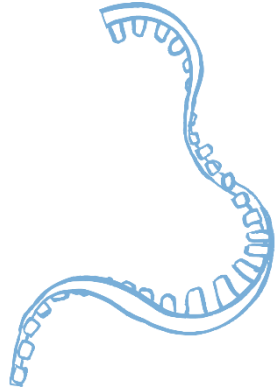
# Canopy Biosciences - Portfolio

A Specialty CRO specializing in Spatial Immuno-Profiling Technologies and Multi-omic Analyses



Central Labs in Leipzig & Hannover, DE and St. Louis & San Francisco, USA

Since September 2020 part of Bruker



## Transcriptome

NanoString nCounter

NanoString GeoMX DSP

RNA-Seq and scRNA-Seq

FISH



## Proteome

ChipCytometry

IHC

NanoString GeoMX DSP

# Proteomics - ChipCytometry

CellScape Platform

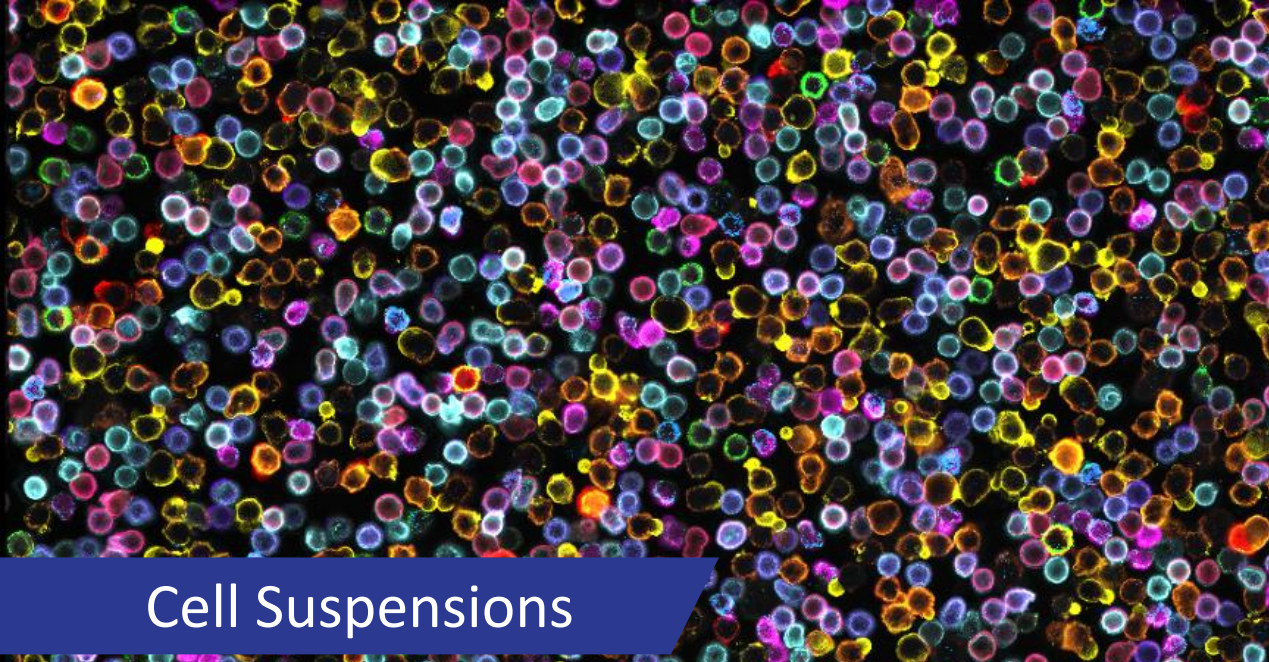
## Chip Cytometry: *High-plex proteomics with true single-cell resolution*

Chip Cytometry is the immobilization of cells on microfluidic chips. On these chips single cells can be analyzed to obtain the following information;

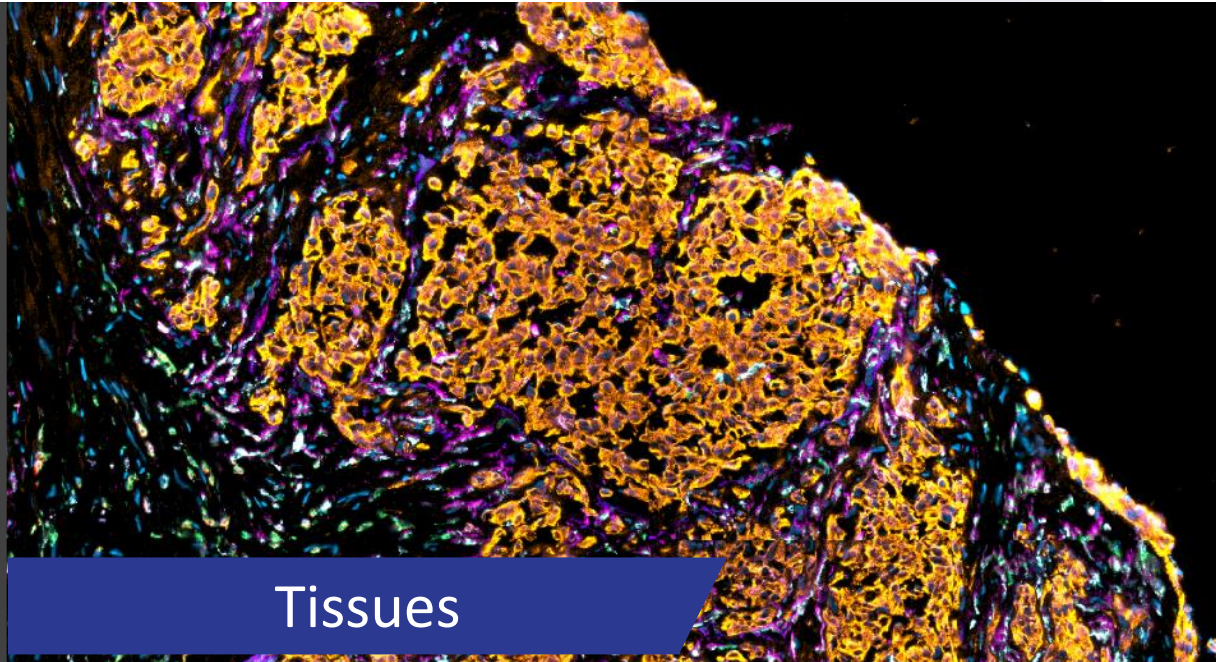
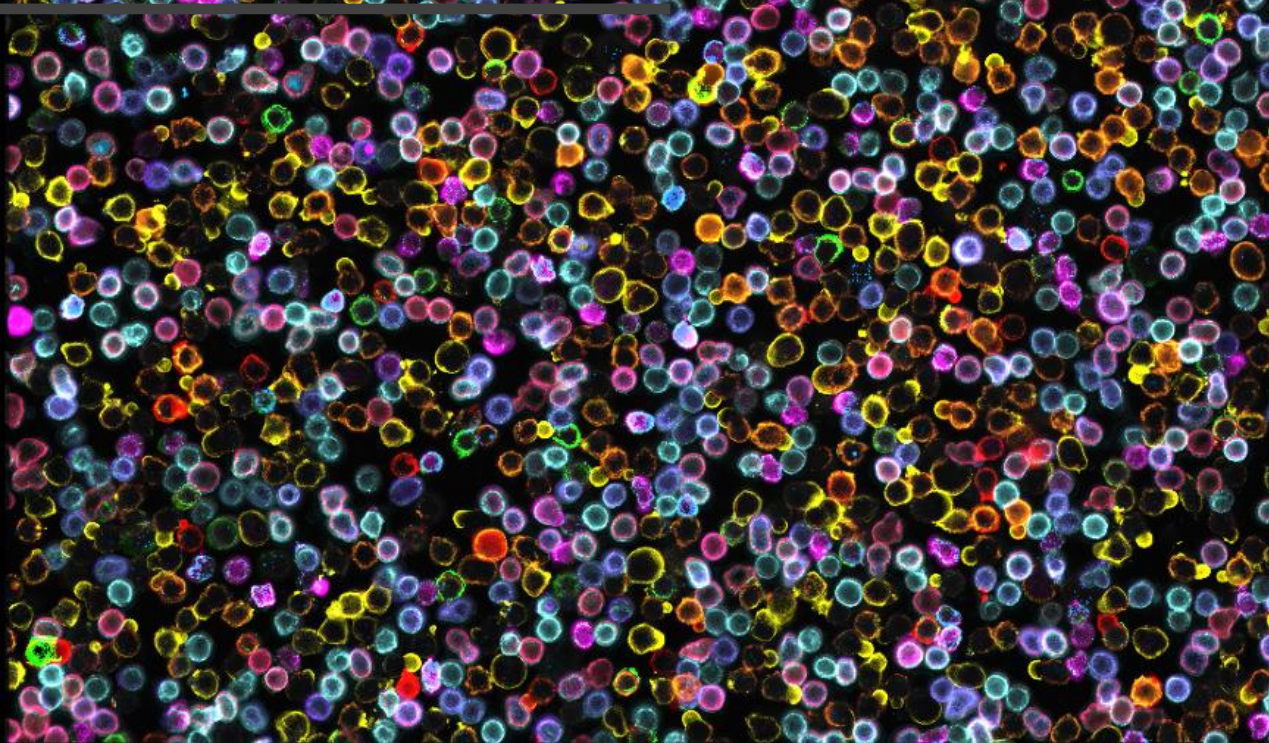
- Morphology and spatial information
- Expression of Surface Markers
- Intracellular Function/Markers

### ***Key Advantages:***

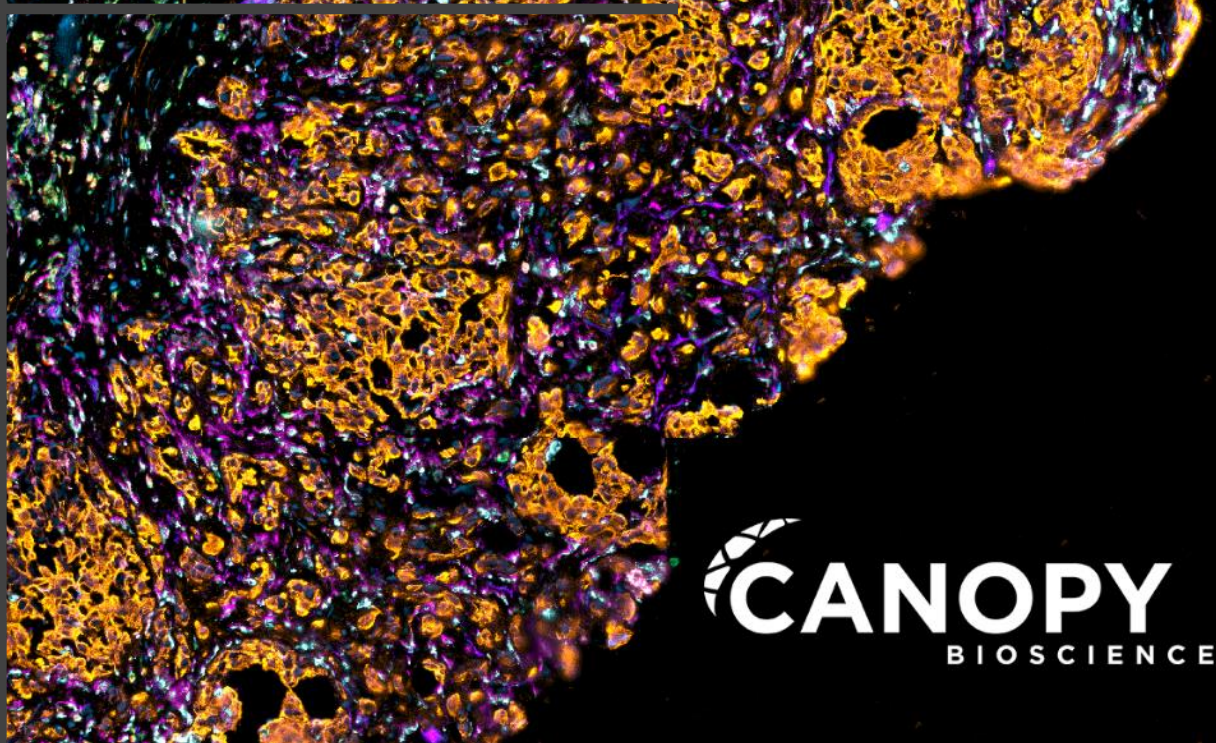
- Highest resolution and high dynamic range on the market
- Unlimited protein biomarkers
- Use of commercially available open-source reagents
- Samples can be bio-banked and reinterrogated for up to 2 years\*
- Sample flexibility -- FFPE, FF, and PBMC's
- High throughput fully automated system

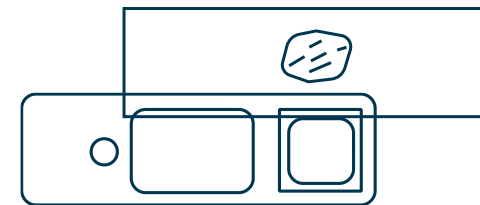
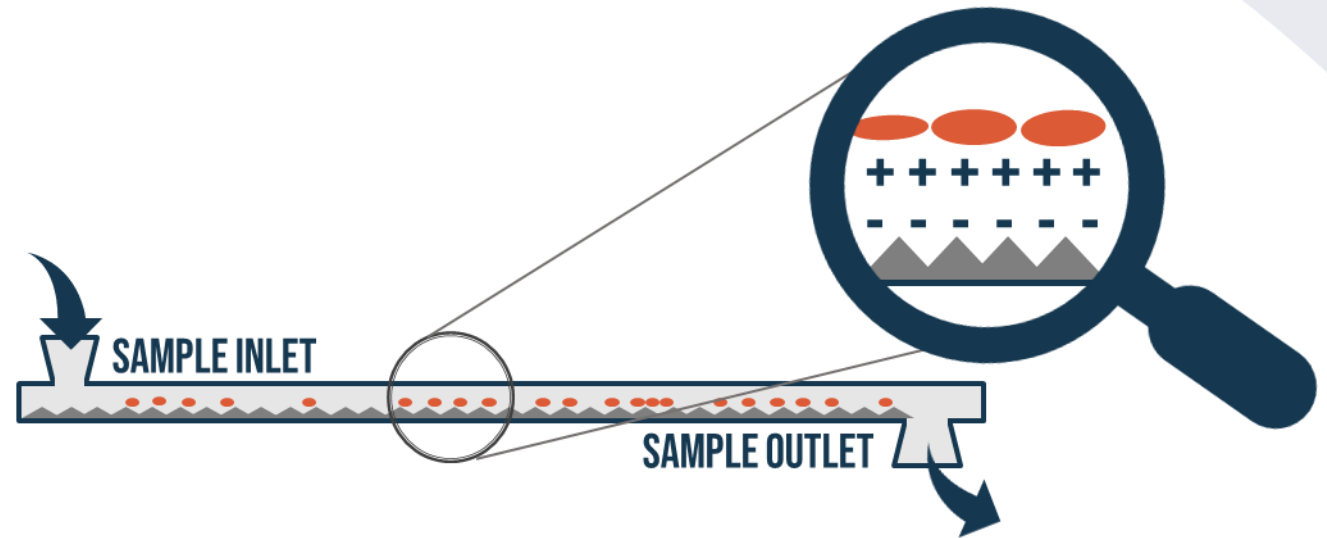
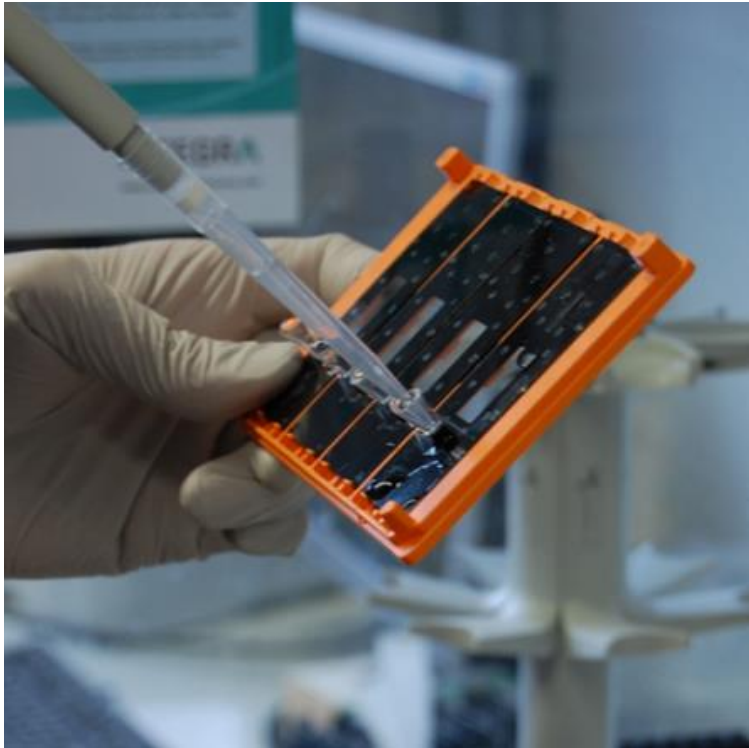


Cell Suspensions

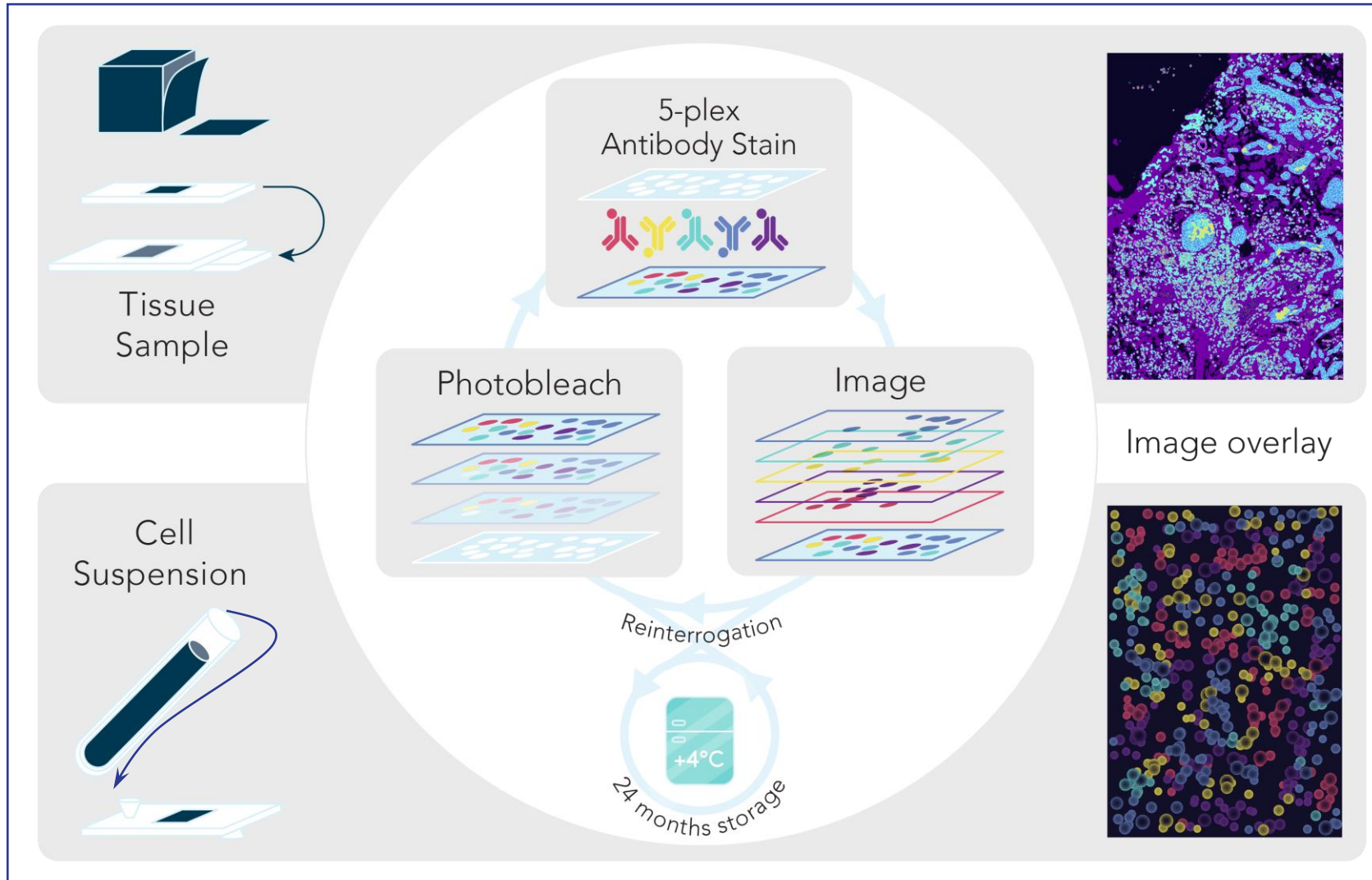


Tissues





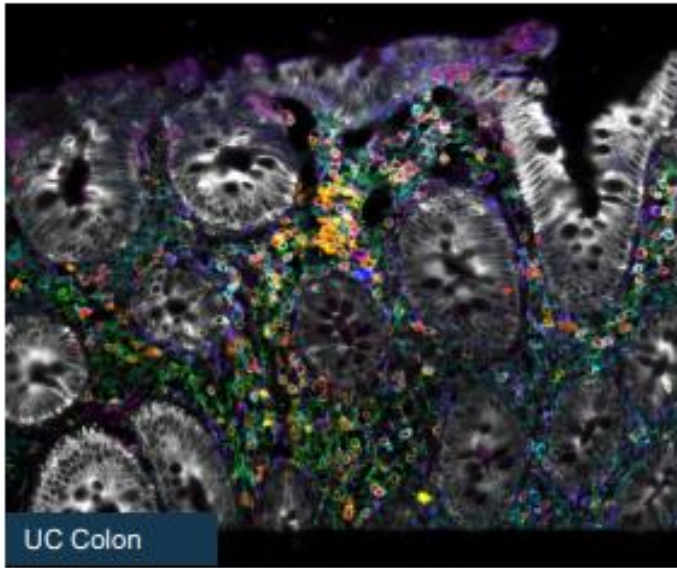
Product	ZellSafe™ Cells	ZellSafe™ Rare	ZellSafe™ Tissue
Specimen	cell suspension	rare cells (<0.02%)	Tissue sections (5-7 microns)
Loading capacity	40-100µl	40-300µl	Up to 6 sections
Cell number	typically 250,000	typically 1,000,000	tissue-dependent (max 1.2-2.4 cm)



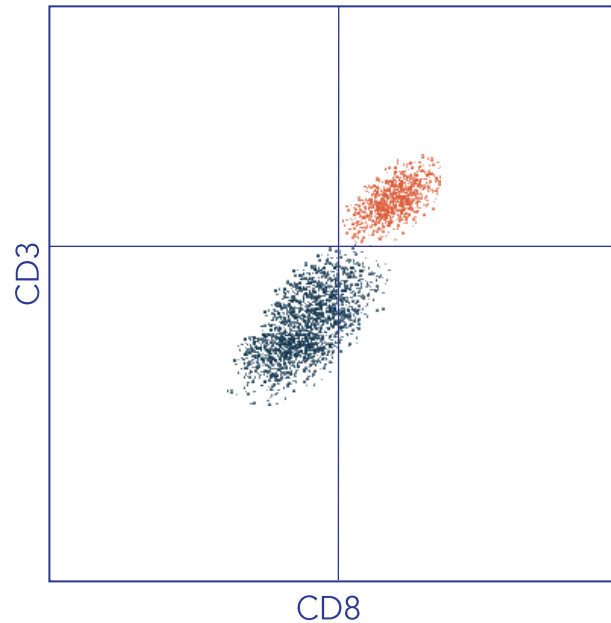
## SCHEMATIC 2.

Samples are loaded onto ZellSafe™ chips and iteratively stained and imaged using fluorescently labelled antibodies. The serial images are digitally overlaid for virtually unlimited multiplexing of protein biomarkers.

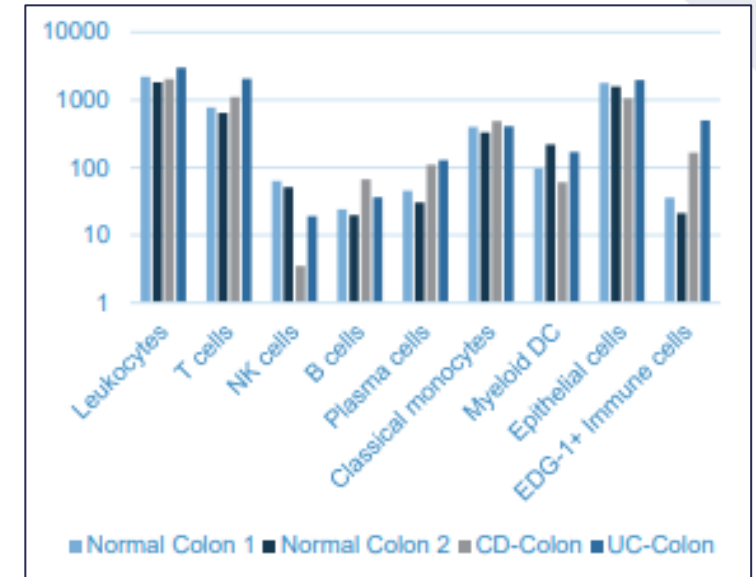




## Image & Segment

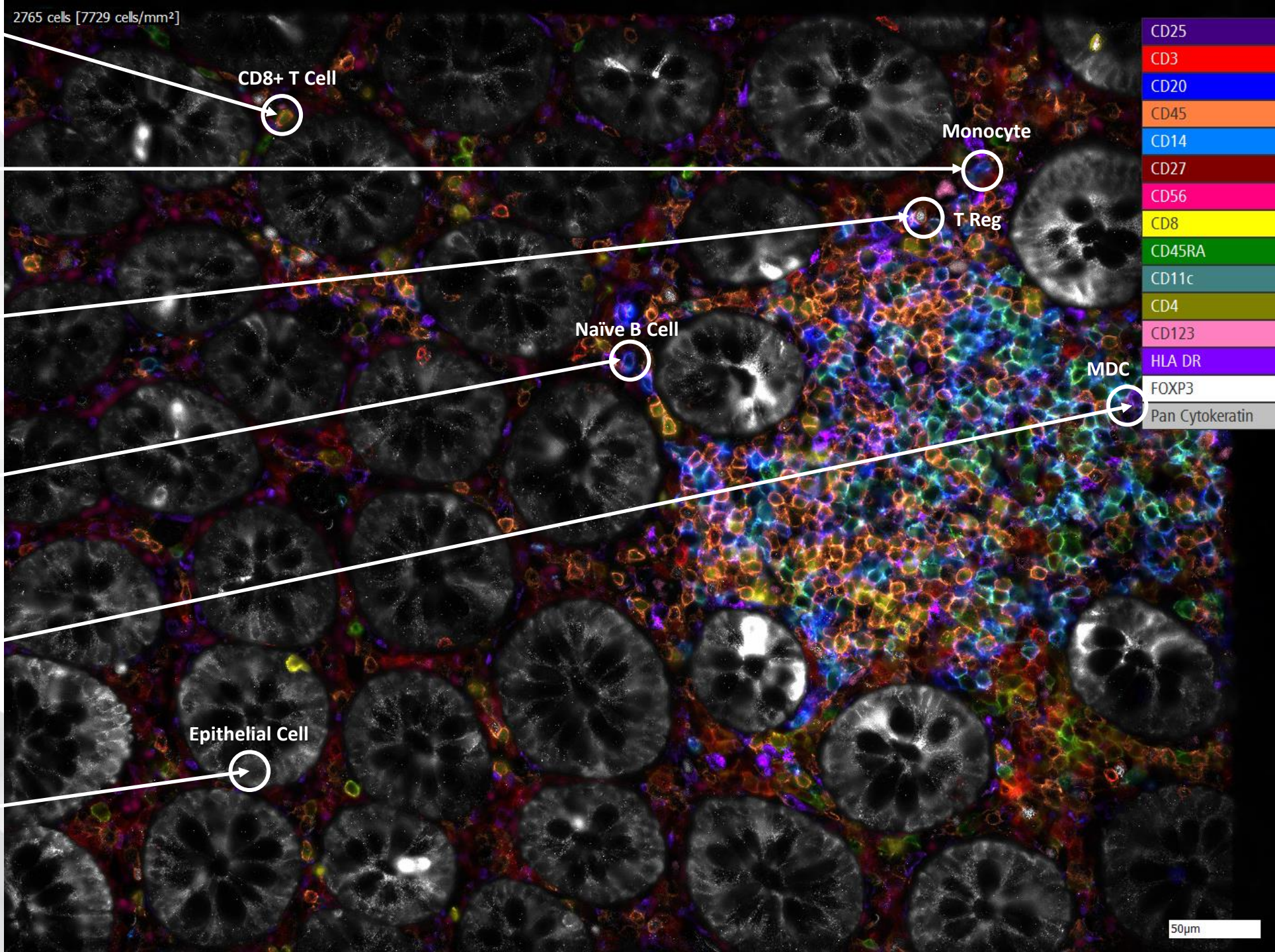
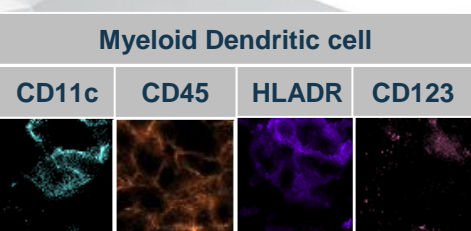
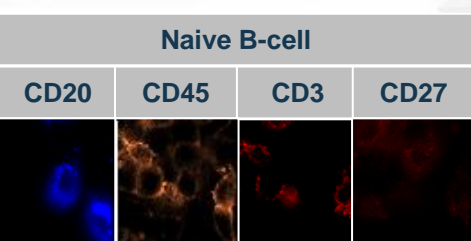
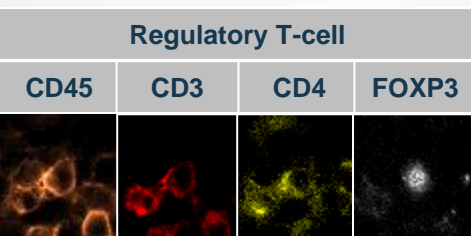
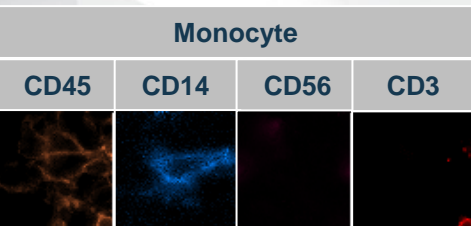
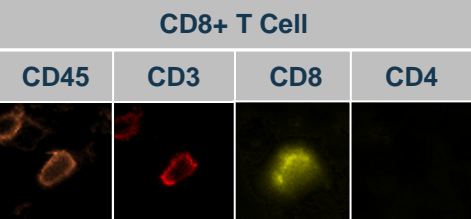


## Index Sorting

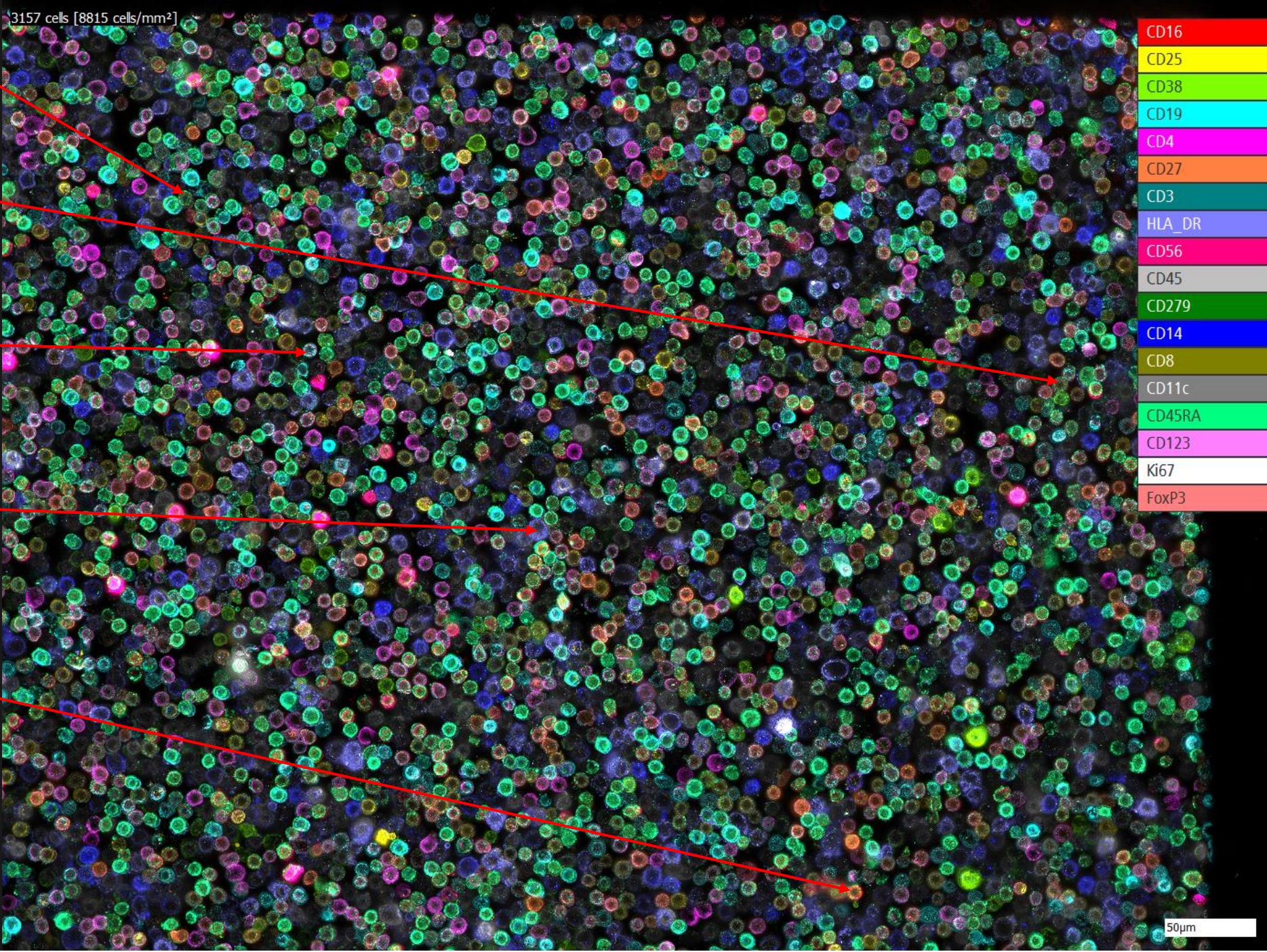
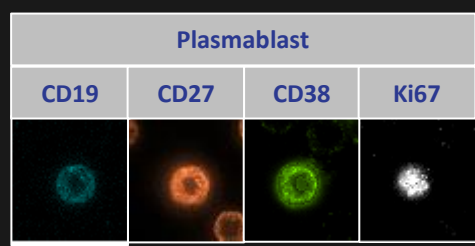
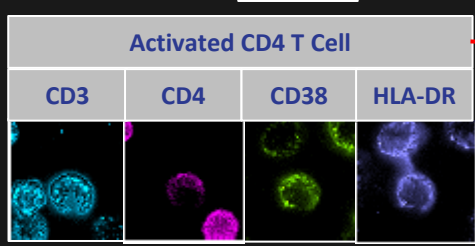
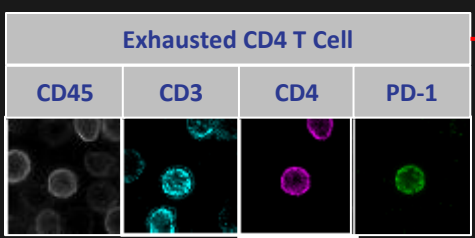
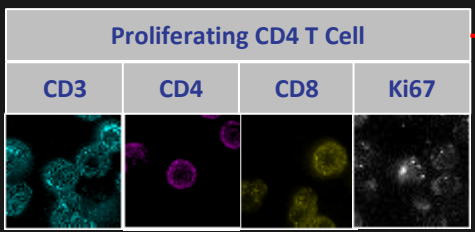
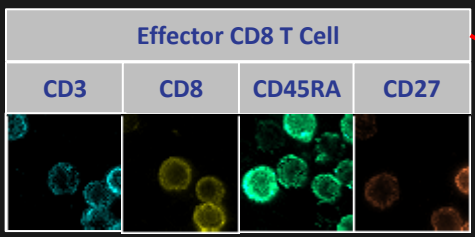


## Quantify Populations

- FCS files are generated from high-resolution images allowing for the phenotyping of each individual cell in your sample
- Multi-channel OME-TIFFs
- CSV → every cell, FL intensity value for each marker, X-Y coordinates



3157 cells [8815 cells/mm<sup>2</sup>]



- CD16
- CD25
- CD38
- CD19
- CD4
- CD27
- CD3
- HLA\_DR
- CD56
- CD45
- CD279
- CD14
- CD8
- CD11c
- CD45RA
- CD123
- Ki67
- FoxP3

50µm

# T-Cell Infiltration – H&N Primary Tumor



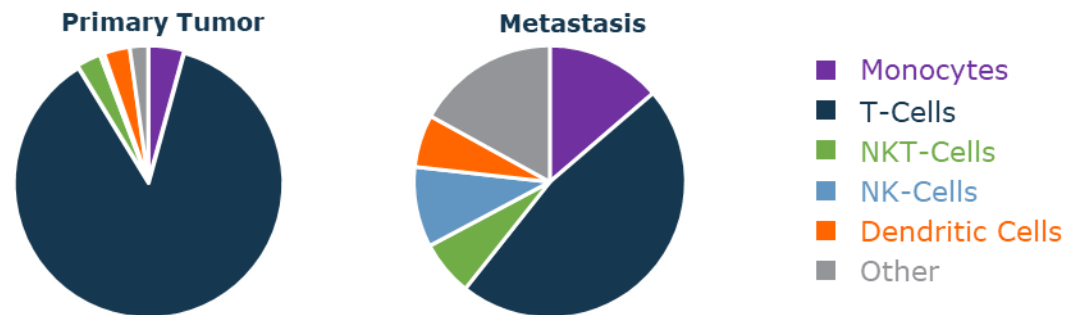
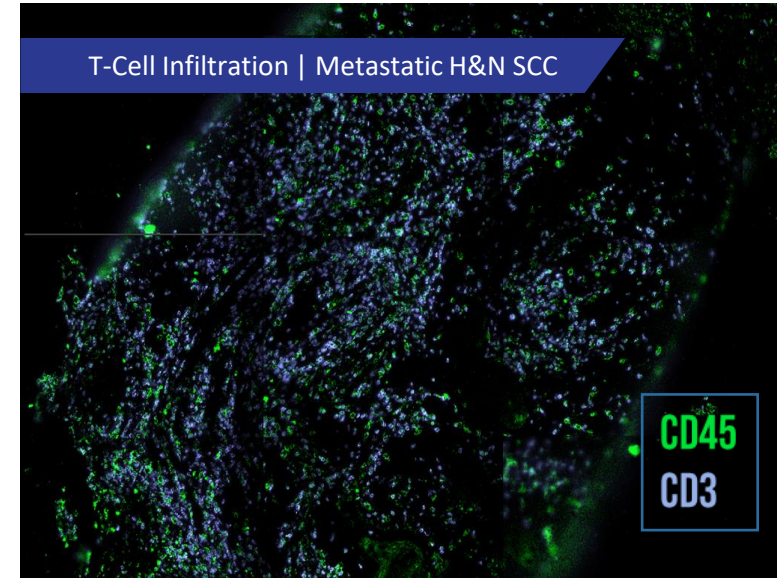
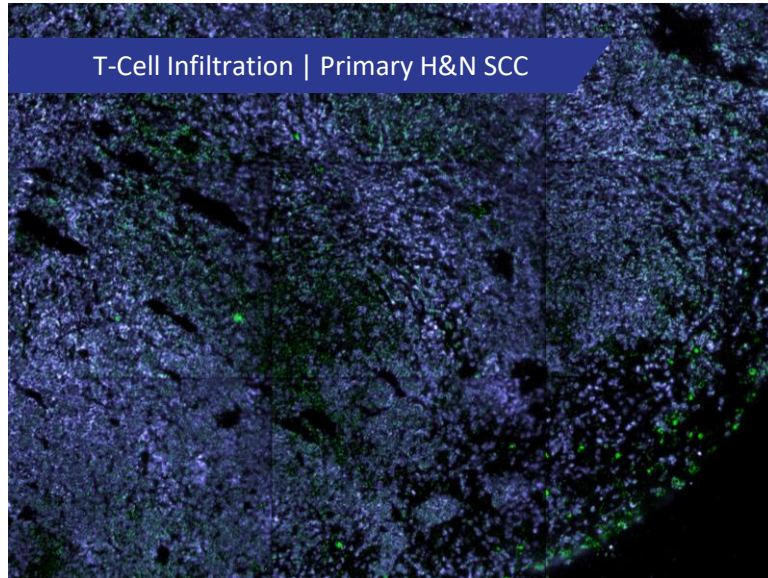
200 μm

**CD4**  
**FOXP3**

T-regs (CD4+, FOXP3+) make up ~10% of CD4+ cells.

T-reg percentage in relation to CD4+ population is higher in tumor edge area.

# Quantitative data. New discoveries.

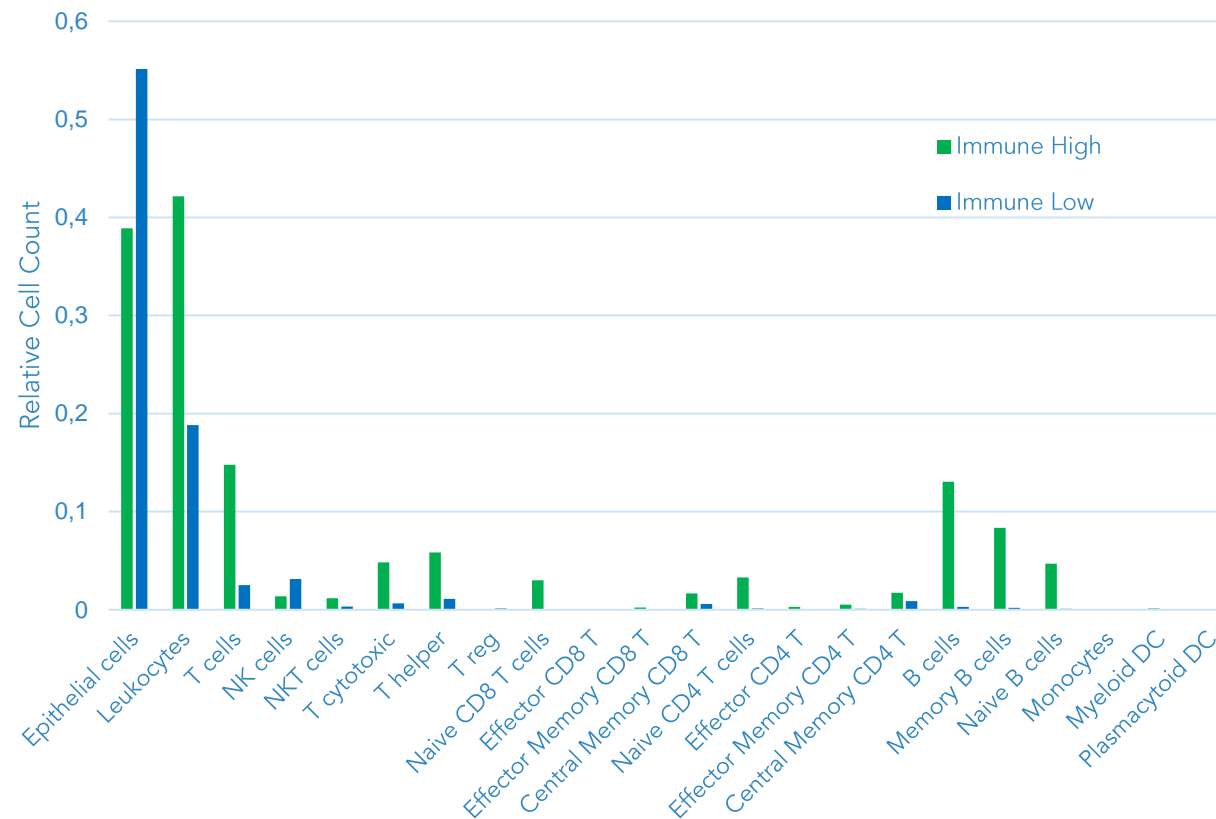
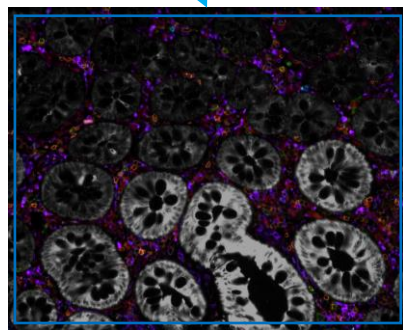
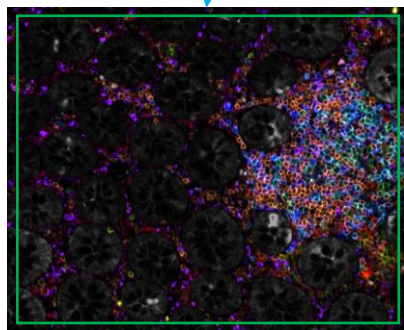
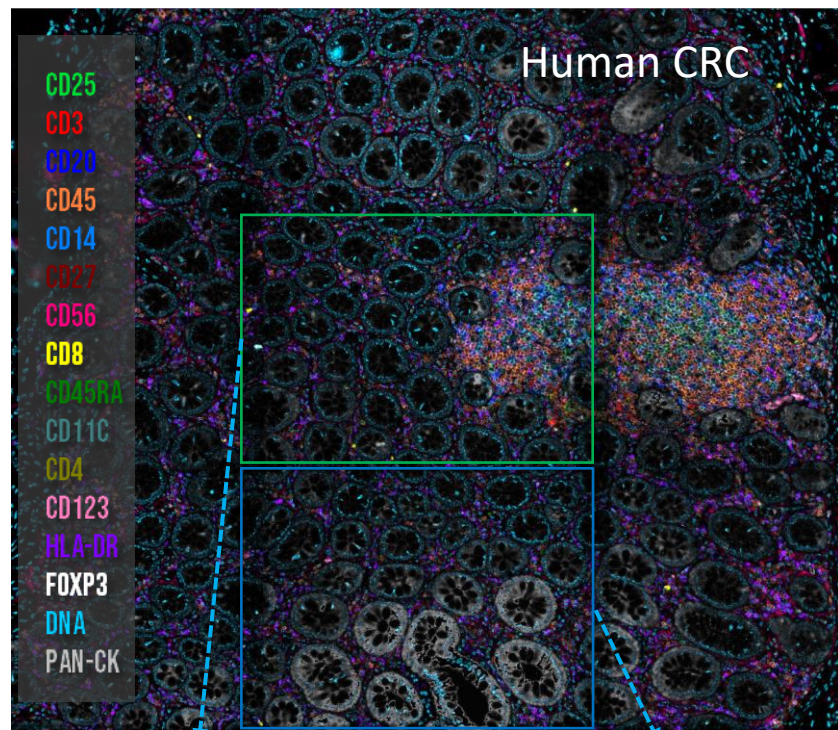


## T Cell Infiltration.

Comparing the immune cell composition of a primary and metastatic tumor site from the same patient reveals significant differences between the T-cell infiltration at the two sites.



# Quantitative data. New discoveries.



## Tumor Heterogeneity.

Comparing the immune cell composition regions of interest from the same sample reveals significant heterogeneity in immune composition across the sample.

# Cytometry Instruments



## ZellScannerONE

- Entry level pricing
- Medium throughput



## CellScape

- Enclosed, compact instrument
- Walk-away Automation and Minimal Hands on

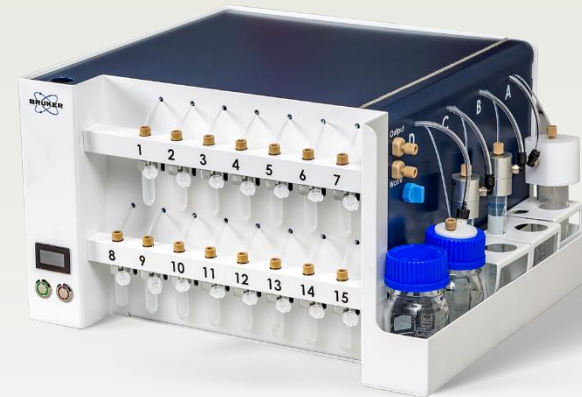


# Introducing CellScape: The Next-Generation ChipCytometry Instrument

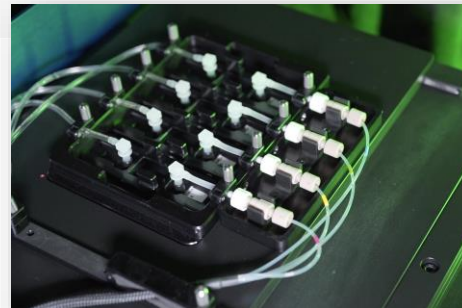
Enclosed imaging system



Seamless Fluidics Integration



Purpose Built and Highly Optimized for High-throughput, High-plex Spatial Proteomics



4-gang sample holder





# Introducing CellScape™: The Next-Generation ChipCytometry™ Instrument





[www.CanopyBiosciences.com](http://www.CanopyBiosciences.com)