

CELL PHENOTYPING in situ at single-cell resolution



RARE CELL DISCOVERY by imaging every cell across whole-slides



FUNCTIONAL STATE mapping with multiomic detection (RNA, protein)



CELLULAR **NEIGHBORHOODS** cellular neighborhood analysis enabled by ultrahigh-plex imaging



SPATIAL SIGNATURE development through high-throughput studies

A FRAMEWORK FOR COMPREHENSIVE SPATIAL PHENOTYPING

Scaling up spatial discovery is now a reality.

INTRODUCING PHENOCYCLER-FUSION

A breakthrough solution for comprehensive and unbiased spatial phenotyping.

FAST Map 1 million cells in

as little as 10 minutes

UNBIASED

Image whole slides rapidly

ULTRAHIGH-PLEX

Analyze 100+ biomarkers from any sample type

HIGH-THROUGHPUT

Analyze 5 to 100+ slides per week

HIGH-RESOLUTION

Single-cell and sub-cellular resolution

MULTIOMIC

Analyze RNA and protein markers from the same sample



AN INTEGRATED END-TO-END SOLUTION

The PhenoCycler-Fusion system is part of an integrated spatial biology workflow from staining to analysis.



STAIN

Whole-slide staining of tissues using pre-designed or custom antibody panels.

IMAGE

Flow-cell enabled automated whole-slide fluidics and iterative image acquisition.

ANALYZE

Visualize and interpret using Akoya's software suite or open-source solution.

A comprehensive workflow starting with single-step tissue staining to preserve sample integrity, image acquisition and on-board processing allowing you to go from sample-to-data in 24 hours.

FLEXIBLE OPTIONS TO MEET YOUR NEEDS





SPECIES Mouse or human TISSUE FORMAT
Formalin-fixed,
paraffin-embedded (FFPE)
fresh frozen or TMAs

ANTIBODY PANELS
Ranging from validated,
customized or
pre-designed panels

NEED A HAND TO GET STARTED? **EXPLORE STEP**

With our Spatial Tissue Exploration Program (STEP), you can request a custom conjugation service or see the data with your own samples.



GET A QUOTE AT: akoyabio.com/step

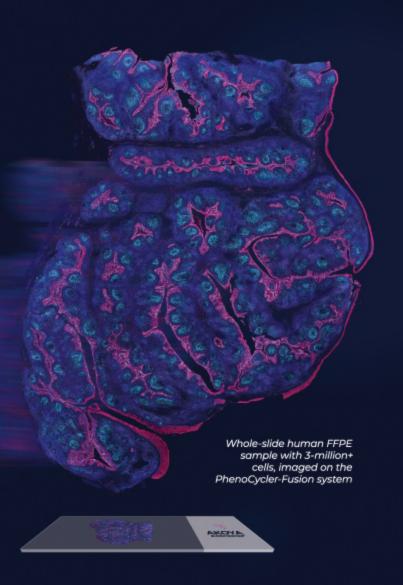


High-speed imaging technology that can map

1 MILLION CELLS IN 10 MINUTES

A game-changing innovation for unbiased spatial discovery, the PhenoCycler-Fusion system enables ultrahigh-plex, whole-slide imaging so you don't lose valuable hours in image acquisition.





UNLOCK INSIGHTS FROM ARCHIVED FFPE SLIDES



Novel flow cell technology for deep spatial phenotyping from standard microscope slides.

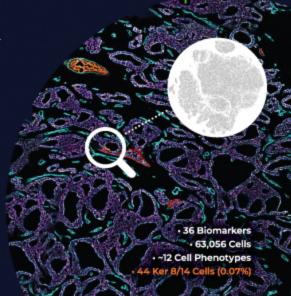
CASE STUDY:

THE POWER TO DISCOVER RARE CELLS

The PhenoCycler solution enabled the discovery of a rare cell type in a breast cancer FFPE sample, previously only described in healthy breast tissue. This discovery highlights the power of unbiased whole tissue imaging at single-cell resolution.



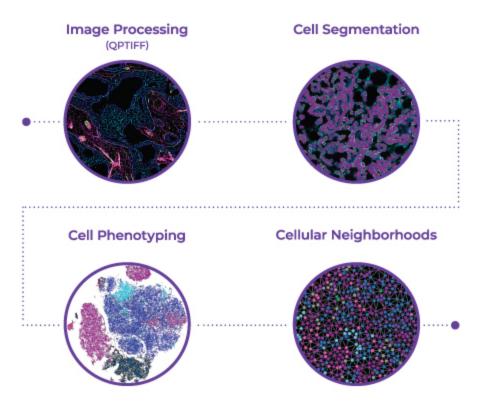
DOWNLOAD APP NOTE AT: akoyabio.com/rarecell



Connective Tissue

AN ANALYTICAL FRAMEWORK FOR **COMPREHENSIVE SPATIAL PHENOTYPING**

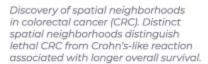
From rare cell discovery to cellular neighborhoods, spatial phenotyping has myriad applications. The steps below illustrate an essential framework to go from raw images to spatial insights.

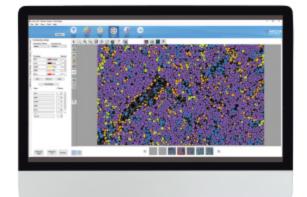


FLEXIBLE OPTIONS FOR **DOWNSTREAM DATA ANALYSIS**

Open doors to comprehensive spatial phenotyping via analysis-ready QPTIFF files directly from the instrument. QPTIFF files can be analyzed via Akoya software suite or a variety of third-party solutions.







CASE STUDY:

FROM CELL PHENOTYPES TO SPATIAL NEIGHBORHOODS

In this seminal Cell publication, researchers at Stanford utilized the PhenoCycler solution to analyze how cells organize into neighborhoods, much like a city, that influence disease progression and outcomes in colorectal cancer.

DOWNLOAD APP NOTE AT: akoyabio.com/neighborhood



DISCOVER TRANSLATE IMPLEMENT

Translate your discoveries into actionable spatial phenotypic signatures with our connected ecosystem of solutions

The PhenoCycler-Fusion Solution Spatial Discovery at Scale

Rapid whole-slide imaging of 100+ biomarkers.







CASE STUDY:

Johns Hopkins researchers discovered a highly predictive immunotherapy signature by combining Akoya's PhenoImager high-throughput solution with sky mapping algorithms from Astronomy.

♦ SEE HOW AT: akoyabio.com/astropath

The PhenoImager Solution Spatial Signatures at Scale

Rapid whole-slide imaging of 6 biomarkers, 300+ slides per week

OF MARKERS PER RUN