Digital Pathology
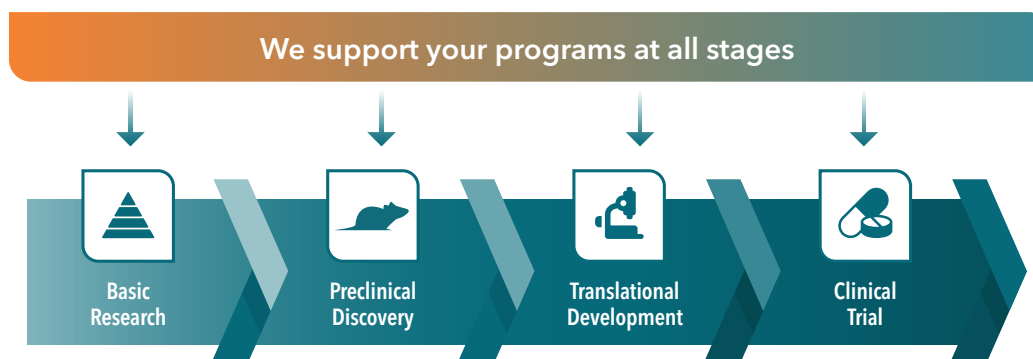
A morphology, imaging and pathology-based
biomarker analysis platform

A JSR Life Sciences Company
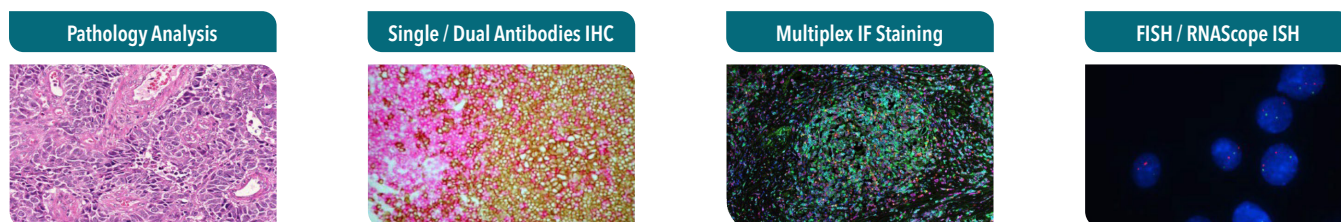
Accelerating Drug Discovery with Tailored Laboratory Support

We support your programs at all stages

- Basic Research
- Preclinical Discovery
- Translational Development
- Clinical Trial

Digital Pathology Capabilities
Trusted Pathology

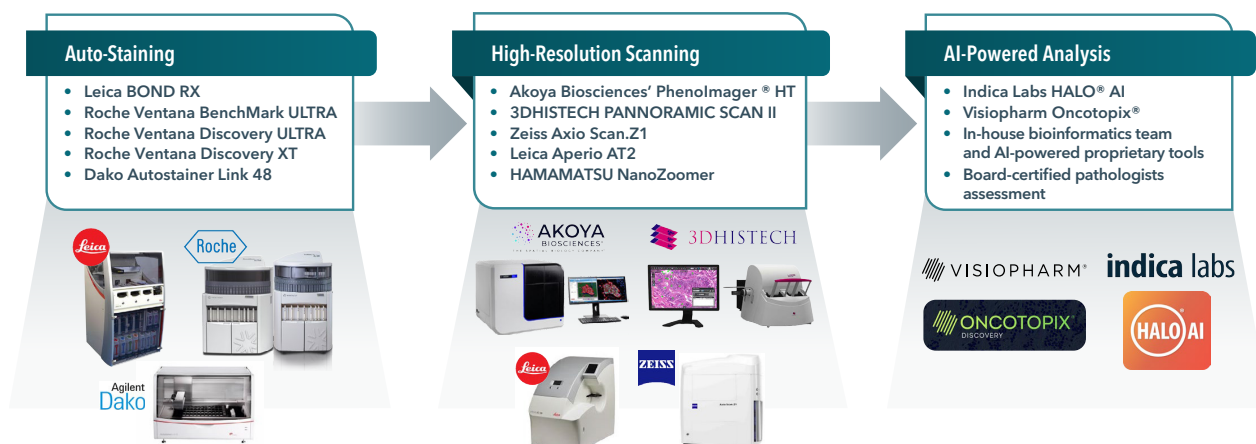| Pathology Analysis	Single / Dual Antibodies IHC	Multiplex IF Staining	FISH / RNAScope ISH

Our Strength

| Extensive Marker Library	Cutting-Edge Technology Platform	Expert Consultation and Evaluation	AI-Powered Image Analysis and Bioinformatics	Proven Assay Development and Validation
• Nearly 500 IHC-qualified human and mouse markers • Custom validation for client-specific markers	• Automated staining and high-throughput imaging • Real-time data sharing and remote review	• Board-certified pathologists and expert consultants • Fast, high-quality assessments for research and clinical trials	• AI-driven tissue analysis (HALO®, Visiopharm Oncotopix®) • 13+ years of in-house bioinformatics expertise in image analysis and deep learning	• Reliable, reproducible assays ready for clinical applications

Advanced Digital Pathology Technology Platform
Rapid and impartial results that you can rely on.

Auto-Staining
- Leica BOND RX
- Roche Ventana BenchMark ULTRA
- Roche Ventana Discovery ULTRA
- Roche Ventana Discovery XT
- Dako Autostainer Link 48

High-Resolution Scanning
- Akoya Biosciences' PhenoImager ® HT
- 3DHISTECH PANNORAMIC SCAN II
- Zeiss Axio Scan.Z1
- Leica Aperio AT2
- HAMAMATSU NanoZoomer

AI-Powered Analysis
- Indica Labs HALO® AI
- Visiopharm Oncotopix®
- In-house bioinformatics team and AI-powered proprietary tools
- Board-certified pathologists assessment

Multiplex IF – More Data from Every Sample

With Akoya Biosciences' PhenoImager® HT

PD-L1
CD3
CD8
PD-1
CD68
Pan-CK
DAPI

PD-L1 Immune Panel
Human Tonsil
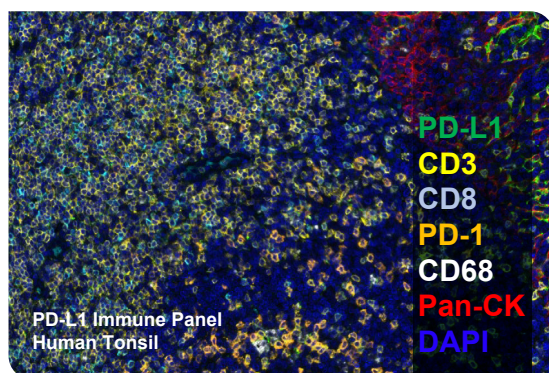
- **More Reliable Data:** Reduces false positives (10x improved signal-to-noise)

- **Enhanced Precision:** Up to 50% increase in phenotyping and scoring accuracy

With Ultivue InSituPlex ® Technology

PD-L1
PD1
CD3
CD4
CD8
CD68
FOXP3
Pan-CK

IO panel NSCLC
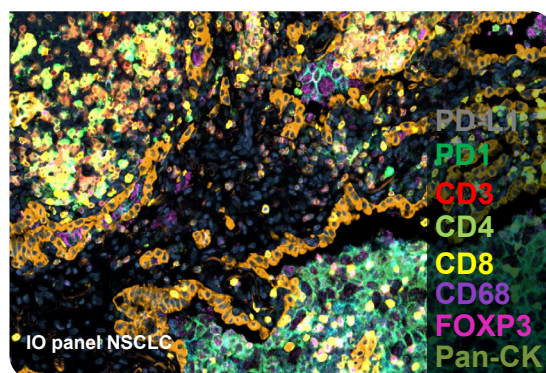
- **Profile Up to 12 Targets Simultaneousl:** Get deeper biological insights in one run

- **Preserve Limited Samples:** Single-step antigen retrieval conserves precious specimens

Multiplex IF Pre-Validated Human Panels with Akoya Biosciences' PhenoImager® HT

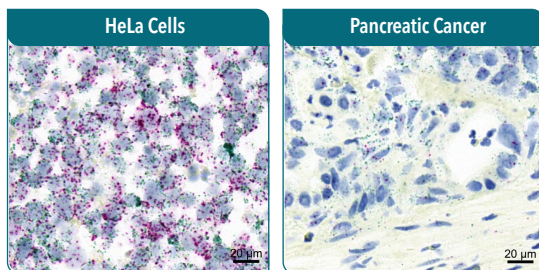| Multiplex IHC/IF Panel	Human	# of Colors
Immune Universal Panel	Pan-CK/HLA-DR/CD68/FOXP3/CD4/CD8/DAPI	7
	Pan-CK/CD68/CD163/FOXP3/CD4/CD8/DAPI	7
	CD3/CD8/CD45RO/CD56/CTLA-4/Granzyme B/DAPI	7
	CD11b/CD14/CD15/CD68/CD163/HLA-DR/DAPI	7
	CD8/CD45/Pan-CK/PD-1/PD-L1/TIM-3/DAPI	7
PD-L1-Immune Panel	Pan-CK/PD-L1/CD3/CD8/CD68/FOXP3/DAPI	7
	CD45/CD3/CD4/CD8/CD68/PD-L1/DAPI	7
	CD3/CD8/CD68/FoxP3/Pan-CK/PD-L1/DAPI	7
	CD3/CD4/CD8/CD68/FoxP3/PD-L1/DAPI	7
	CD4/CD8/CD68/PD-1/PD-L1/Pan-CK/DAPI	7
	CD3/CD8/CD68/PD-1/PD-L1/Pan-CK/DAPI	7
PD-L1 I/O Panel	Pan-CK / PD-L1 / CD8 / CD68 / DAPI	5
T Cell Activation Panel	Pan-CK / CD3 / Granzyme B / Ki67 / DAPI	5
Tumor-Associated Macraphages (TAM)	Pan-CK / HLA-DR / CD11b / CD68 / CD163 / CD11c / DAPI	7
Activated T Cell Panel	CD8 / CD3 / Granzyme B / Ki-67 / pan-CK / DAPI	6
Treg / Exhaustion Panel	CD4 / CD8 / Foxp3 / PD-1 / pan-CK / DAPI	6
APC Panel	CD11c / CD20 / CD68+CD163 / MHC II / pan-CK / DAPI	6
ADC Panel	ADC target/CD8/CD14/CD15/CD206/FoxP3/DAPI	7
	ADC target/CD8/CTLA-4/PD-1/PD-L1/DAPI	6
	ADC target/beta III Tubulin/Cleaved Caspase-3/p-H2A.X, Topoisomerase I/DAPI	6

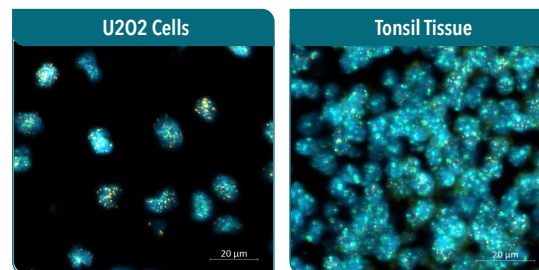## Multiplex IF Pre-Validated Mouse Panels with Akoya Biosciences' PhenoImager® HT

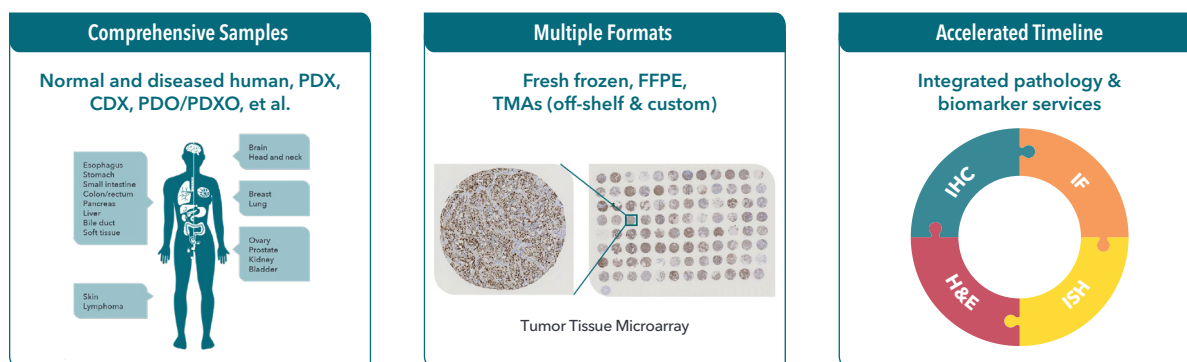| Multiplex IHC/IF Panel	Mouse	# of Colors
PD-L1-Immune Panel	Pan-CK/PD-L1/CD3/CD8/F4/80/Foxp3/Dapi	7
	PD-L1/PD1/CD3/CD8/F4/80/Foxp3/Dapi	7
	CCD45/CD3/CD4/CD8/F4/80/PD-L1Dapi	7
	CD4/CD8/F4/80/MHCII/Foxp3/PD-L1/Dapi	7
T Cell Panel	Pan-CK/TCF1/7/CD4/CD8/PD-1/Foxp3/Dapi	7
	CD8/Granzyme B/Ki67/Dapi	4
	CD4/CD8/F4/80/Dapi	4
Tumor-Associated Macrophages (TAM)	Pan-CK/CD11c/F4/80/iNOS/MHCII/Dapi	6
	CD11b/F4/80/iNOS/CD206/Dapi	5
Lymphoid and Myeloid Panel	CD45/CD3/CD4/CD8/F4/80/Dapi	6
	Pan-CK/Granzyme B/CD335/Ly6G/CD11b/Dapi	6
	CD8/F4/80/CD11c/CD335/Dapi	5
T and NKT Panel	CD45/CD3/CD8/CD335/IL12A/Dapi	6
Tumor Microenvironment Panel	Pan-CK/Collagen-I/CD3/CD8/Dapi	5
	Pan-CK/CD45/TIM3/LAG3/α-SMA/Dapi	6

In Situ Hybridization

RNAscope *In Situ* Hybridization (ISH)

HeLa Cells	Pancreatic Cancer

Fluorescence *In Situ* Hybridization (FISH)

U2O2 Cells	Tonsil Tissue

Streamline with Preclinical and Human Biospecimen Biobank

Comprehensive Samples

Normal and diseased human, PDX, CDX, PDO/PDXO, et al.

Multiple Formats

Fresh frozen, FFPE, TMAs (off-shelf & custom)

Tumor Tissue Microarray

Accelerated Timeline

Integrated pathology & biomarker services

IHC · IF · ISH · H&E

Get in touch

US: +1 858 622 2900   busdev@crownbio.com
UK: +44 (0)1530 234871   www.crownbio.com