CROWN BIOSCIENCE

Digital Pathology and Spatial Biology Services

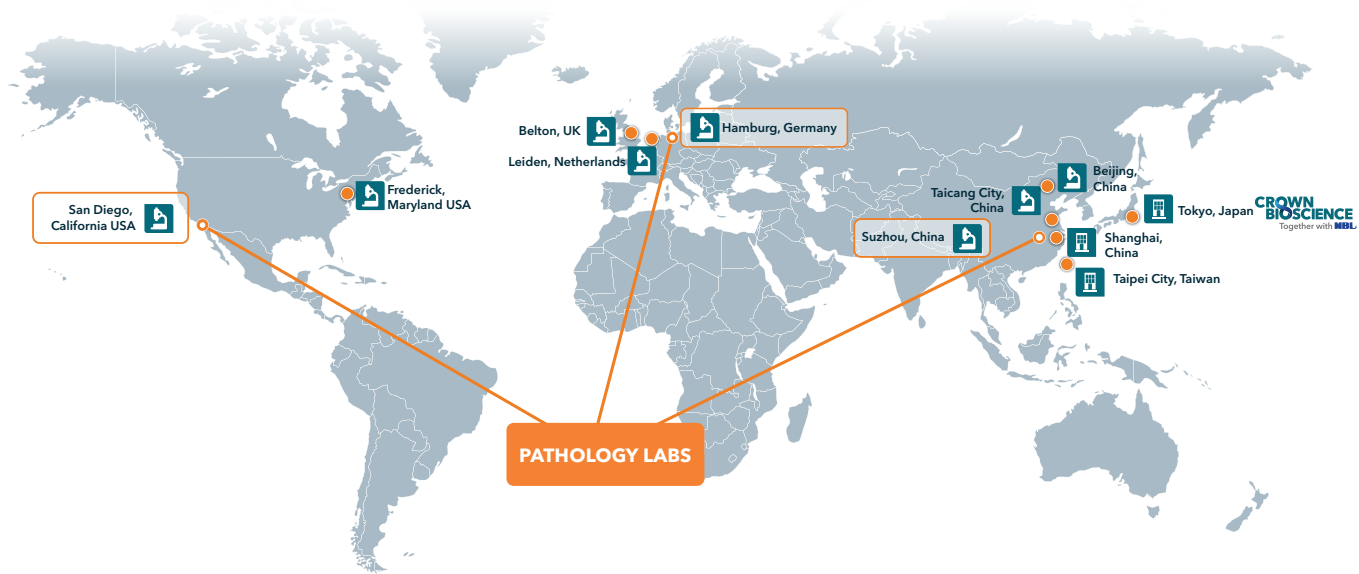**Global Excellence in Pathology Services**

A JSR Life Sciences Company

Your Global Partner in Translational Biomarker Services

Renowned in the preclinical drug discovery and development domain, Crown Bioscience extends our expertise to clinical biomarker analysis with cutting-edge biomarker labs in the USA, Europe, and APAC.

Global Pathology Labs in the USA, Europe, and APAC

Belton, UK
Hamburg, Germany
Leiden, Netherlands
Frederick, Maryland USA
San Diego, California USA
Taicang City, China
Beijing, China
Tokyo, Japan
Suzhou, China
Shanghai, China
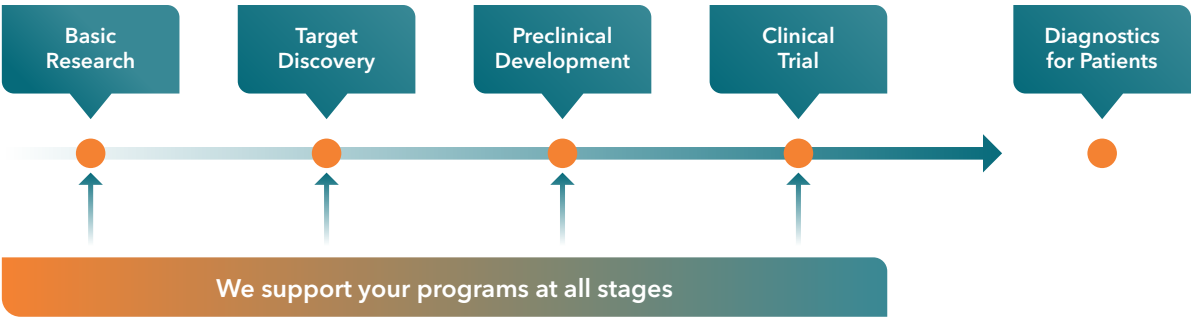Taipei City, Taiwan

PATHOLOGY LABS

Our Commitment to Quality and Precision

Proudly holding CAP accreditations, our labs exemplify the highest standards in cancer research and biomarker analysis.

(For our medical laboratories in Hamburg, Germany and Suzhou, China)

Basic Research	Target Discovery	Preclinical Development	Clinical Trial	Diagnostics for Patients

We support your programs at all stages

Our Strength: Customized Research Solutions

Customization and Expertise

Navigating lab research and clinical trial complexities with efficiency.

Rapid Response and Engagement

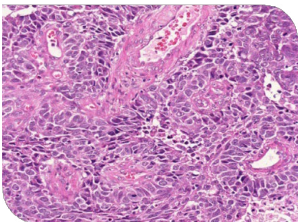Demonstrating adaptability and dedication through swift and personalized interaction.
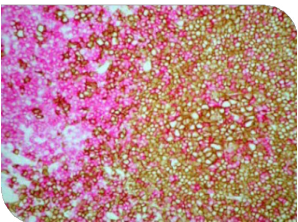
Specialized Support

Our team's profound knowledge of quality standards and specific project requirements ensures our unwavering support.
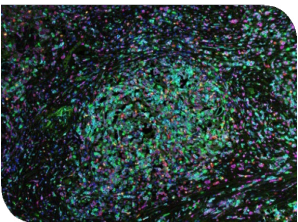
Enhanced Digital Pathology Solutions
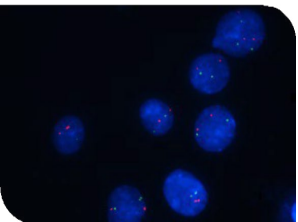
Pathology Analysis	Single / Dual Antibodies IHC	Multiplex IF Staining	FISH / RNAScope ISH

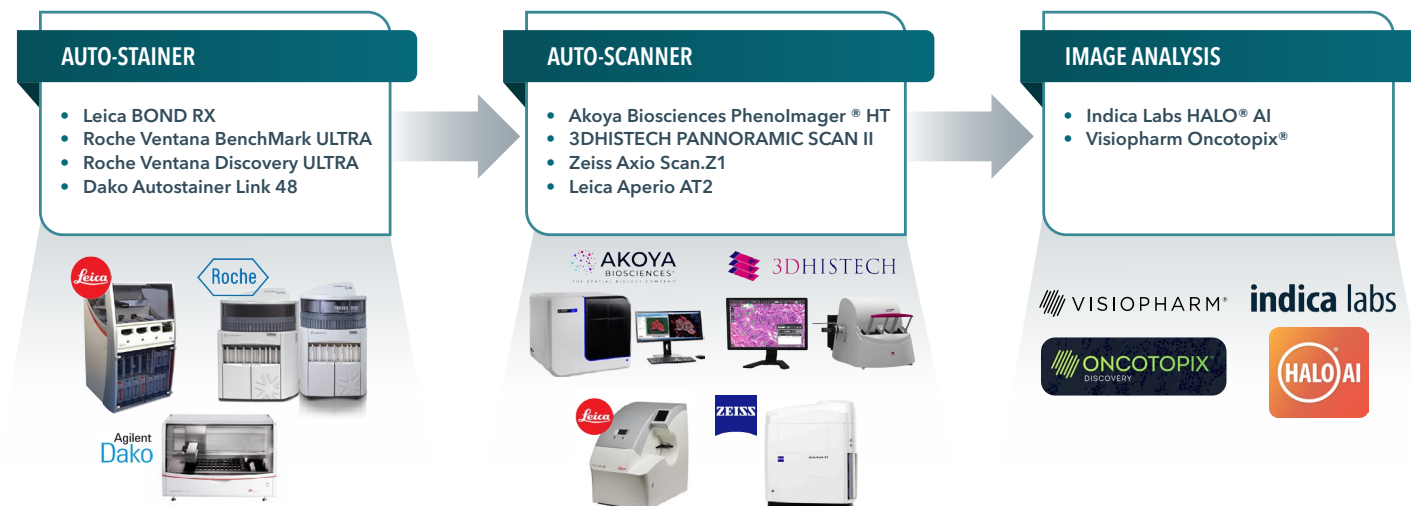| Extensive Marker Library	Cutting-Edge Technology Platform	Expert Consultation and Evaluation	AI Image Analysis and Bioinformatics	Proven Method Development and Assay Validation
• A comprehensive catalog with over 400 IHC qualified markers for varied analysis needs • Custom validation available for client-specific markers	• Automated staining, high-throughput imaging, and image analysis • Real-time data sharing and remote review capabilities	• Leveraging our board-certified pathologists and seasoned consultants, we ensure top-quality and swift turnaround assessments to support both research endeavors and clinical trials.	• Detailed tissue analysis by the HALO® AI and Visiopharm Oncotopixo® image analysis platform at your fingertips • In-house bioinformatics team to support image analysis, with AI and deep learning	• Depend on our proven track record for robust, reproducible assays, ready for your clinical applications

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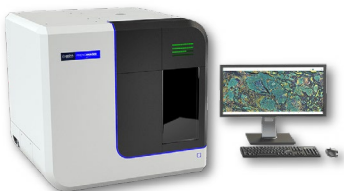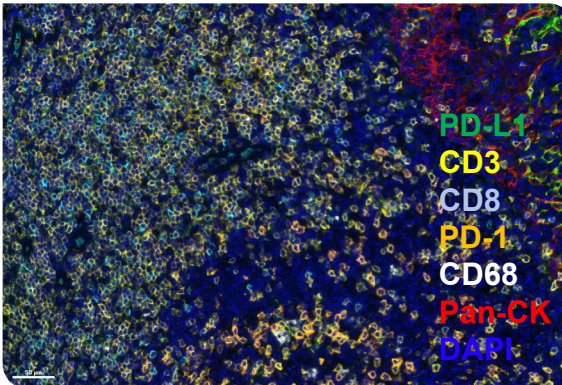
Rapid and impartial results that you can rely on.

- Comprehensive, end-to-end workflow: From staining to scanning to analysis, ensuring consistent quality and accuracy.
- Cutting-edge technology: Leveraging the latest advancements in digital pathology for unparalleled reliability and precision.

AUTO-STAINER

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

AUTO-SCANNER

- Akoya Biosciences PhenoImager ® HT
- 3DHISTECH PANNORAMIC SCAN II
- Zeiss Axio Scan.Z1
- Leica Aperio AT2

IMAGE ANALYSIS

- Indica Labs HALO® AI
- Visiopharm Oncotopix®

Multiplex Immunofluorescence (IF) Staining
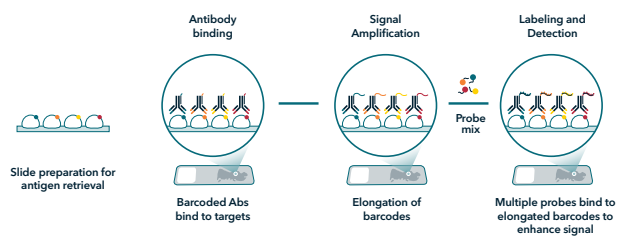
With Akoya Biosciences' PhenoImager® HT.

- Clear and Accurate Insights: Detect up to 8 biomarkers at once, with no interference from autofluorescence.
- Fast and High-Volume Scanning: Complete 6-marker scans of up to 80 slides in under 20 minutes, ideal for large-scale projects.
- Flexible Imaging: Captures detailed images for both fluorescent and chemical stains, accommodating various staining methods.

Akoya Biosciences' PhenoImager® HT

Advanced Multispectral Imaging (MSI) Technology for Signal Unmixing
Differentiates specific biomarkers from autofluorescence and overlapping signals

PD-L1-Immune Panel-Human Tonsil

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

Multiplex IF with Ultivue InSituPlex® Technology

Ultivue InSituPlex ® Technology

Slide preparation for antigen retrieval

Antibody binding
Barcoded Abs bind to targets

Signal Amplification
Elongation of barcodes

Probe mix

Labeling and Detection
Multiple probes bind to elongated barcodes to enhance signal

- **Up to 12 Targets:** Fast, robust panel options
- **Single Step Antigen Retrieval:** DNA barcoded antibodies bind in one step
- **Signal Amplification:** Barcode elongation
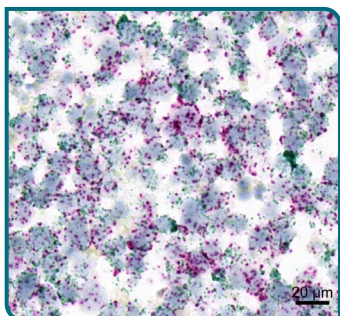- **Enhanced Detection:** Multiple probes bind to amplified barcodes
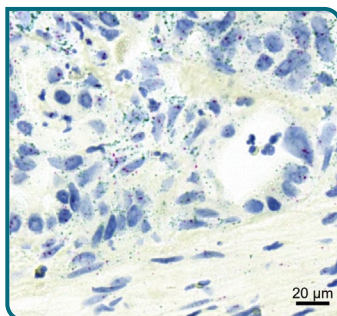
Ultivue 8-plex IO panel - NSCLC
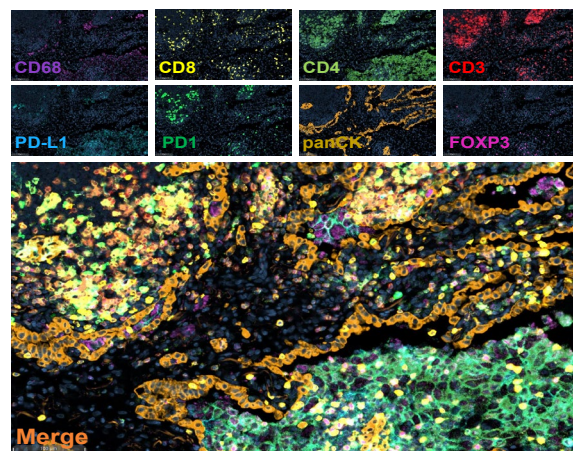
RNAscope *In Situ* Hybridization (ISH)

HeLa Cells	Pancreatic Cancer

Fluorescence *In Situ* Hybridization (FISH)
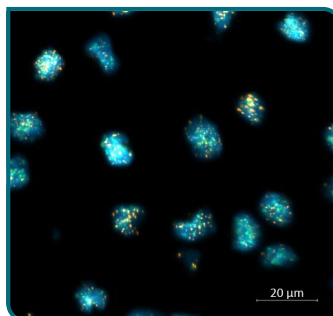
U2O2 Cells	Tonsil Tissue
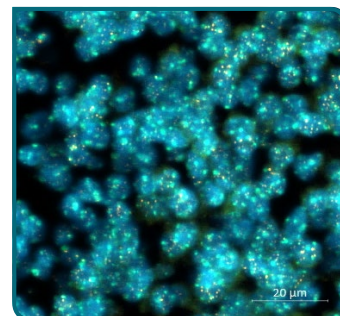
Validated Multiplex Immunohistochemistry (IHC) Panel

Multiplex IHC 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
PD-L1-Immune Panel	Pan-CK/PD-L1/CD3/CD8/CD68/FOXP3/DAPI	7
	CD45/CD3/CD4/CD8/CD68/PD-L1/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 Macrophages (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

Off-the-shelf multiplex IHC panels and customized panels are available, upon request.

Explore our full list of validated markers and panels for IHC, ISH and RNAscope, please visit our website: *https://www.crownbio.com/technologies/biomarker-analysis/digital-pathology*

Access Our High Quality Patient Biobank
Multi-omics Grade and Standard Grade Biospecimens

We provide a broad spectrum of systematic sample quality and clinical data with multi-omics grade, longitudinal plasma and standard grade biospecimens from the most stringent requirements to routine and standard applications.

- Completely standardized ISO-certified protocols and SOPs
- Quality control by certified in-house pathologists
- On-demand customized prospective biospecimen collection services through our global clinical network
- Applications: biomarker discovery, drug development, preclinical research, validation of diagnostic tests
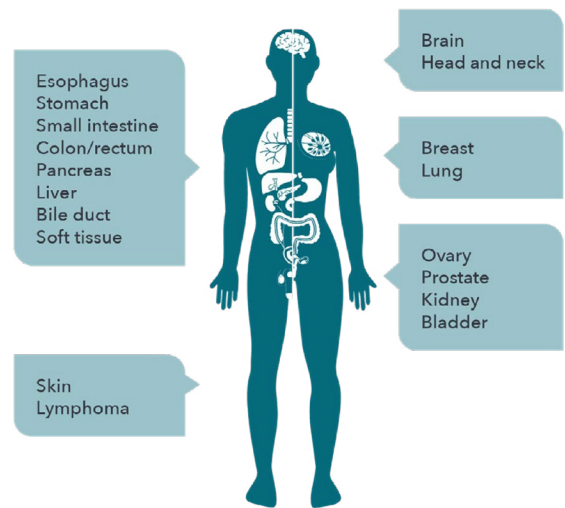
Enhanced Capabilities with Crown Bioscience

Crown Bioscience offers access to premium biospecimens, driving translational research and clinical biomarker analysis.

Bringing Lab Discoveries to Clinical Applications

- Leading the way with pathology-focused translational research, driving immediate clinical impact

- Develop innovative methodologies through collaborative partnership

- Access our comprehensive clinical network for diverse, high-quality pathology specimens, enhancing research precision

Expert Solutions · Rapid Turnaround · Tailored Services · Unmatched Communication

Delivering Excellence in Pathology Services

Get in touch

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UK: +44 (0)1530 234871

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