



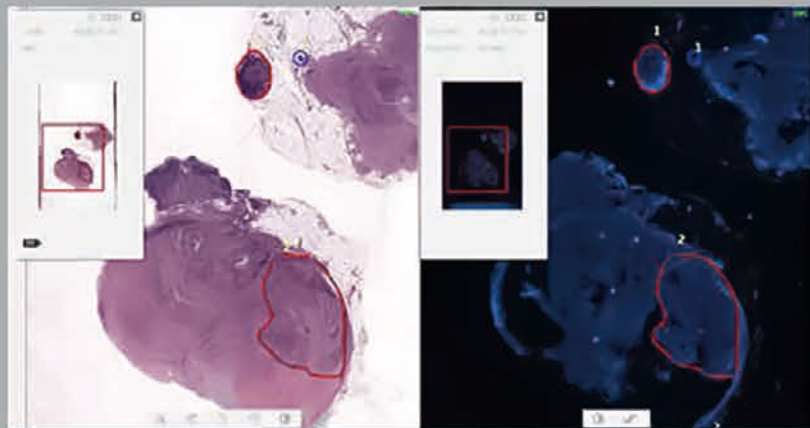
Every
Diagnosis
Counts

THE NEW

PathFusion

Full Pathology Imaging Suite

H&E | IHC | FISH



POWERED BY
GENASIS

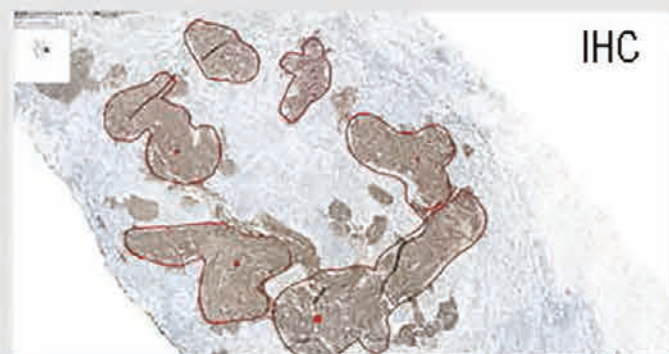
ASI | APPLIED
SPECTRAL
IMAGING

The Ultimate Digital Pathology Workflow

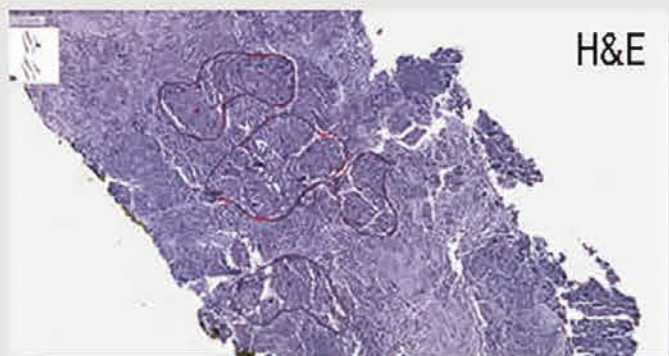
Get quantitative results in support of conclusive diagnosis

Welcome to your optimized workflow:

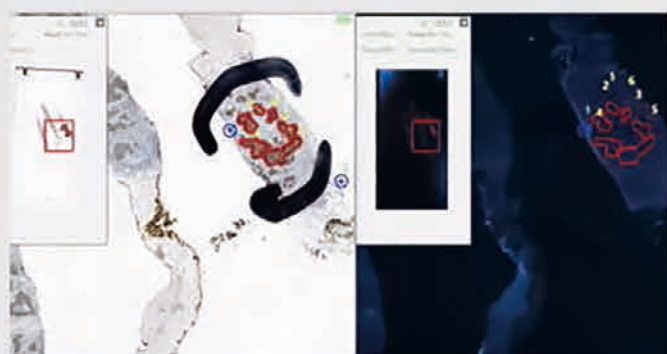
1
View & Mark
your reference slide



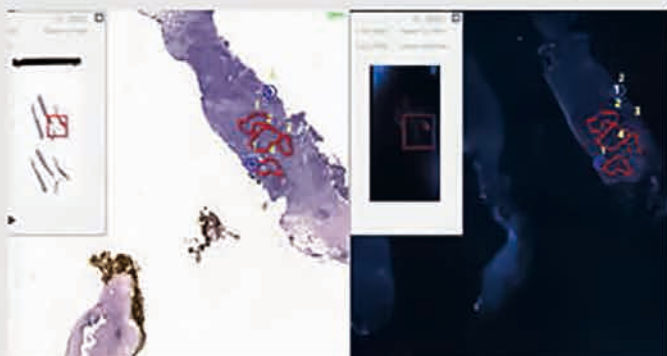
Whole Slide Imaging



2
Match
H&E or IHC tissue
regions with FISH



Scan selected regions of interest in high magnification for FISH analysis



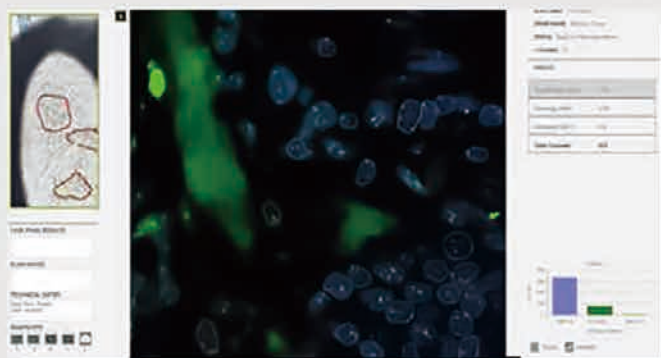
View&Mark >>> Match >>> Analyze >>> Report >>> Complete!

Analyze

for quantitative results

Report

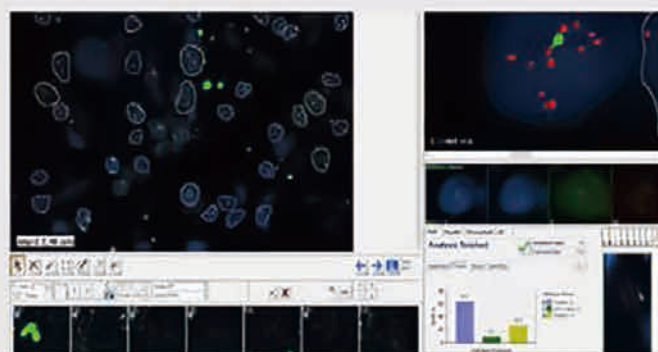
pathologist review
and case sign out



Full FISH analysis with reference map



Detailed custom reporting



Stain	Images	Results	Reference Ranges																								
H&E			<table border="1"> <thead> <tr> <th>Feature</th> <th>Positive</th> <th>Negative</th> </tr> </thead> <tbody> <tr> <td>IL</td> <td>≥ 1</td> <td>< 1</td> </tr> <tr> <td>PI</td> <td>≥ 1</td> <td>< 1</td> </tr> <tr> <td>PS</td> <td>≥ 1</td> <td>< 1</td> </tr> <tr> <td>HER</td> <td>Focal/weak</td> <td>Diffuse/strong</td> </tr> <tr> <td></td> <td>< 10</td> <td>≥ 10</td> </tr> <tr> <td></td> <td>Normal Expression</td> <td>Overexpression</td> </tr> <tr> <td>Her2/Neu</td> <td>1+</td> <td>2+ / 3+</td> </tr> </tbody> </table>	Feature	Positive	Negative	IL	≥ 1	< 1	PI	≥ 1	< 1	PS	≥ 1	< 1	HER	Focal/weak	Diffuse/strong		< 10	≥ 10		Normal Expression	Overexpression	Her2/Neu	1+	2+ / 3+
Feature	Positive	Negative																									
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	Normal Expression	Overexpression																									
Her2/Neu	1+	2+ / 3+																									
Her2/Neu		Counted cells 3443 Class 0: 27.9% (236) Class 1: 4.4% (37) Class 2: 43.9% (384) Class 3: 24.1% (204)	<table border="1"> <thead> <tr> <th colspan="2">Case Results</th> </tr> <tr> <th colspan="2">Comments</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>	Case Results		Comments																					
Case Results																											
Comments																											
Her2/Neu		Scan results: AMP, IHC Probe: Her2/Neu Amplification: 2.09 Counted cells 282 Red: 6.44 Green: 2.24																									

Everything you need for a Complete Digital Pathology System

Multi Application

Comprehensive solution for a wide range of sample types, including primary H&E, IHC antibodies and FISH probes

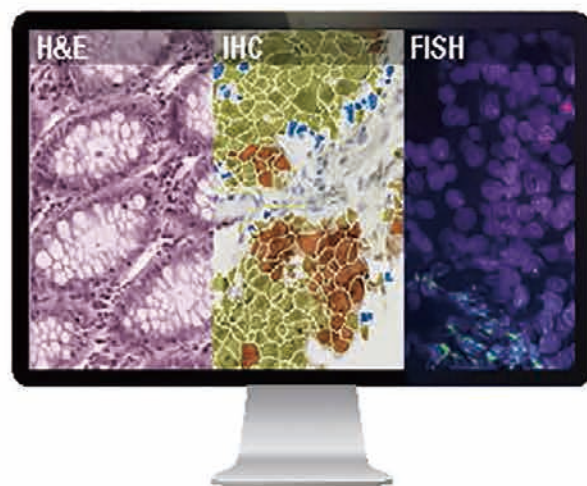
Diagnostic Confidence

Accurate and validated computer-assisted analysis provides higher confidence in patient assessment

Workflow Efficiency

Modern computerized workflows increase lab productivity and improve FTE savings

High Throughput Scanner Captures Both Brightfield and Fluorescent Slides



“Annotated whole slide images of H&E and FISH sections can be digitally aligned, so that areas of tumor within a section can be matched and evaluated with a greater degree of accuracy. Images can be archived permanently, providing a means for examining the results retrospectively.”

Llew M, Rowe L, Clement PW, Miles RR, Salama ME., J Pathol Inform

Digitize Your Slides

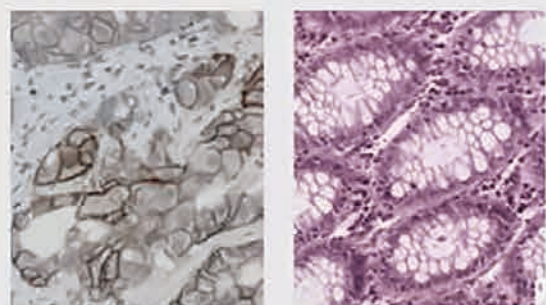
Start & Walkaway Scanning

Efficiency, Accuracy, Ease-of-Use



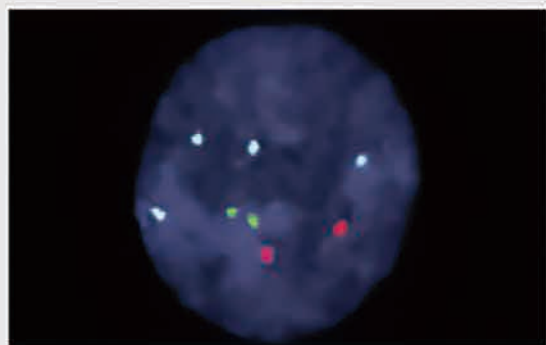
User Independent Scanning

Unattended continuous scanning increases lab productivity and supports greater slide volumes



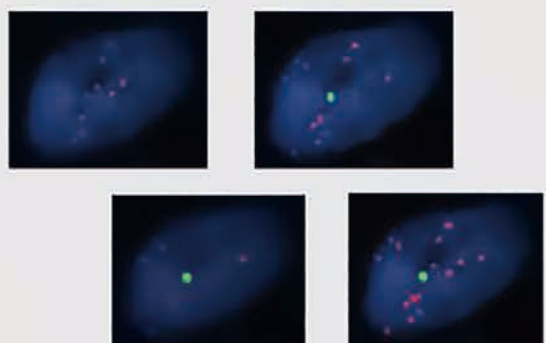
Whole Slide Imaging

Fast and intuitive imaging viewing platform. Advanced navigation and visualization; measurement, annotation and marketing tools.



High Image Quality

High sensitivity sensor, high quality immersion oil, 60X plan apochromatic objective, fluorescent filter control, auto-exposure, anti-debris algorithms and automatic image enhancement.



Z-Stacking & 3D Focus

Image acquisition with unlimited layers of automatic Z-stack and proprietary algorithms for automatic detection of faint signals all lead to impeccable analysis and higher accuracy.

Quantitative FISH Analysis



Specialized algorithms for objective results:
Proprietary algorithms for automated cell identification, signal detection and classification bring you highly accurate, standardized and reliable results.

Optimized User Experience

Onscreen analysis with user customizable workspaces, "Magic Tool" for multiple analysis operations and post-scanning sensitivity adjustment

High image quality with flexible objective options based on specimen and user need - 40X, 60X or 100X

Customizable workspace with multiple view options

The screenshot displays the software's user interface. On the left, a large microscopy image shows a field of cells with blue nuclei and green fluorescent signals. A toolbar at the bottom left includes various analysis tools. On the right, a detailed view of a single cell shows green and red signals. Below this, a panel titled "Analysis finished" displays a bar chart and a data table. The data table is as follows:

Signal	Count
Cell	475
Cell	11
Cell	21

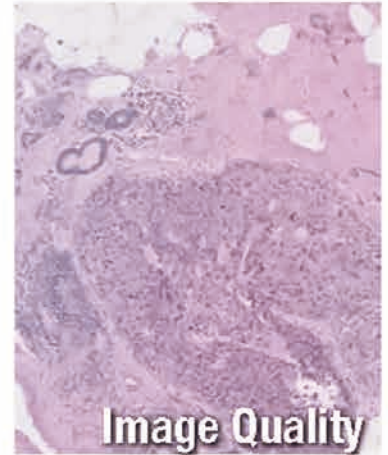
The interface also shows a "Magic Tool" for cell manipulation and a "Novel Magic Tool" for easy and fast cell addition, deletion and boundary editing.

Novel "Magic Tool" for easy and fast cell addition, deletion and boundary editing

Quantitative analysis with pre-defined stop criteria and detailed results

Benefits to your Diagnostics:

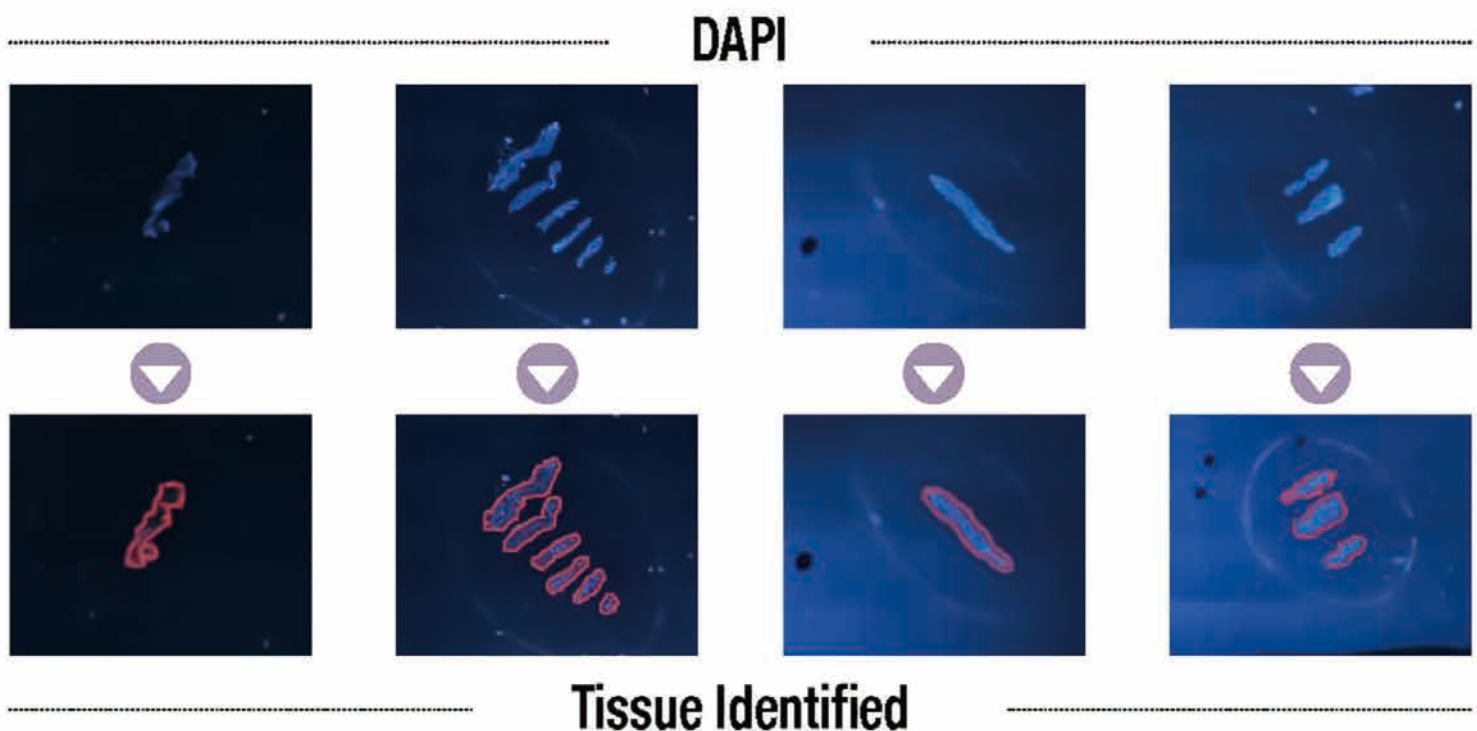
- ✓ Exceptional on-screen **image quality**
- ✓ Accurate, computer-aided analysis for **standardization**
- ✓ **Intuitive navigation** and improved workflow
- ✓ **Signal segmentation** and quantitative results
- ✓ And so much **more...**



Artificial Intelligence based Algorithms: FISH Tissue Detection

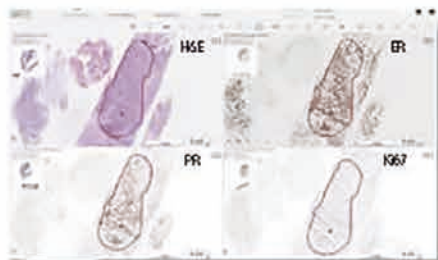
Validated for Precision

Our Artificial Intelligence based DAPI tissue detection algorithm is trained and validated to identify tissue on whole slide imaging with high accuracy

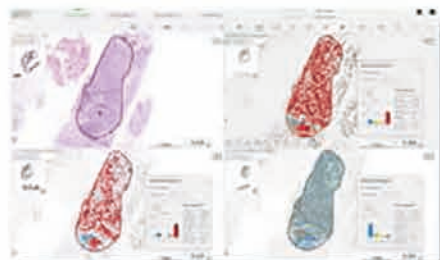


Integrate IHC for more testing capabilities

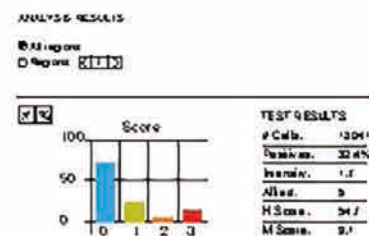
IHC automated workflow on WSI with panel display



Panel display

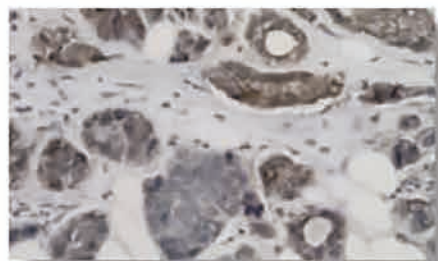


Unique analysis

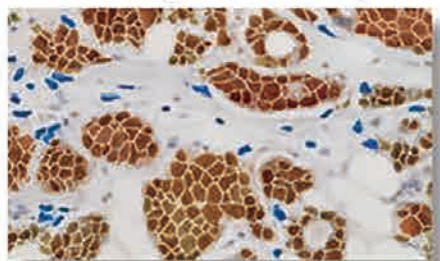


Statistical results

*IHC manual workflow with digital analysis for standardization



Original



Analyzed

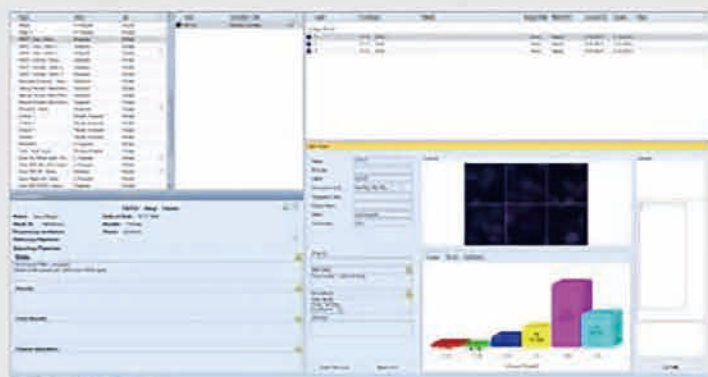


Statistical results

All nuclear and membrane staining. Wide range of tissue samples (e.g. breast, lung, colon, bladder, brain). Vendor neutral - supports markers by all suppliers

Data Management and Connectivity

Central Portal and Database. Easily Integrates with Lab LIS



Case Data Management (CDM)

- ✓ Efficient
- ✓ Comprehensive
- ✓ Eliminates human error



*FDA cleared for FISHview, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH, and for HPath HC Family for HER2, ER, PR, and Ki67, on the manual configuration

Become a Data-Driven Lab with LabLife

NEW

Generate lab performance statistics

LabLife™ for Lab Management



Benchmarks

Calculate performance benchmarks and track your KPIs. Meet certification and regulatory requirements



Optimization

Identify best practices to increase ROI per case and focus improvement efforts



Growth

Justify investment in additional capital equipment for the lab



Annual analysis and review

Compare performance year on year and make data driven decisions

Work from anywhere

GenASIs AnyWhere™ for Remote Access

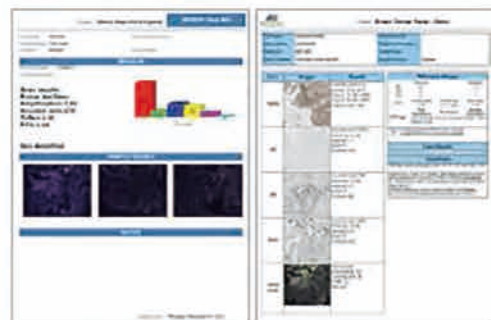
Lab Connectivity Anytime, Anywhere

Review, analyze and sign off case information from any location via a secured network



Remote access, review and analysis

Advanced Reporting



1D/2D Barcode Reader



LIS Connectivity

- ✓ Performance
 - ✓ Security
 - ✓ Data Integrity
- HIPAA Compliant

ASI Company Overview

Applied Spectral Imaging (ASI) is a global leader in biomedical imaging with a comprehensive product portfolio and a global distribution footprint.

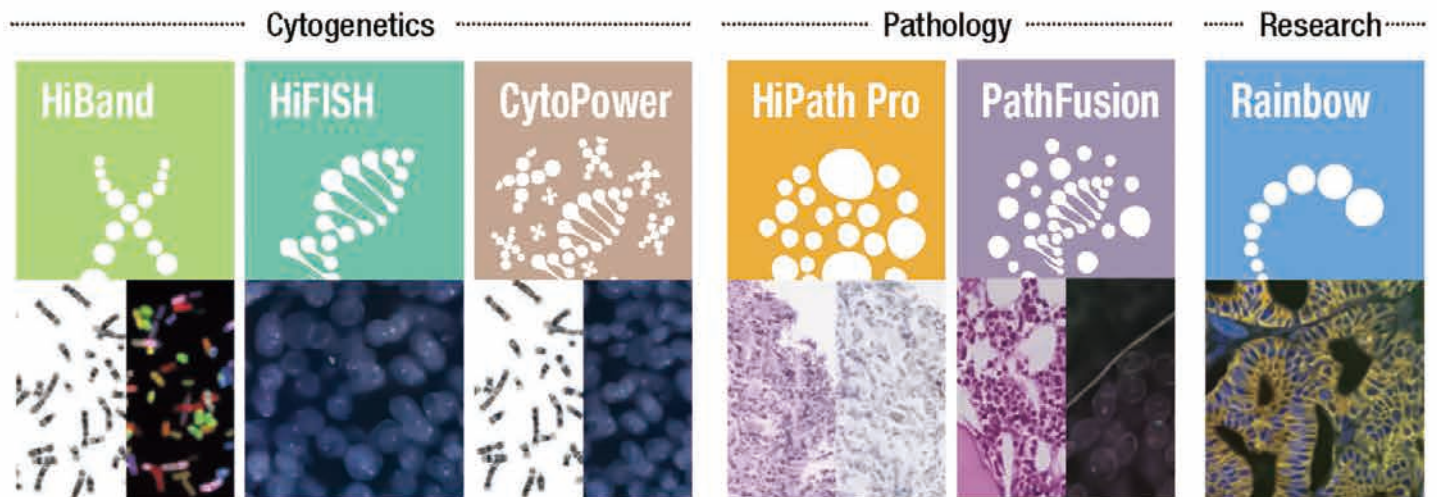
Founded in 1993, ASI markets, services and supports its products in nearly 50 countries. With a wide FDA clearance portfolio, you can rest assured that ASI applications have been rigorously tested for compliance and clinical use.

The Company's technology, powered by GenASIs, enables pathology, cytogenetics and research laboratories to provide advanced diagnostics to patients through superior digital diagnostic tools.

ASI has a wide portfolio of dedicated solutions for brightfield, fluorescence and spectral imaging and analysis, including HiPath Pro, PathFusion, HiBand, HiFISH, CytoPower and Rainbow.

The Company has offices in the US and Asia and a global network of distribution partners.

Product Portfolio



Diverse platforms to accommodate all laboratory needs



99-Slide Tray Loader



9-Slide Scanning System



1-Slide Capture System



HyperSpectral System



Review & Analysis Station



AnyWhere Remote Connectivity

System Specifications



	Manual 1 Slide		9 Slide Tray Loader		99 Slide Motorized Stage	
Microscope Support	BF and FL upright microscopes		OLYMPUS BX61 BF+FL OLYMPUS BX63 BF+FL ZEISS AxioImager Z2 BF+FL		OLYMPUS BX61 BF+FL OLYMPUS BX63 BF+FL ZEISS AxioImager Z2 BF	
Objectives	Olympus 4x/0.16NA 20x/0.5NA 40x/0.75NA 60x/1.25NA	ZEISS 5x/0.16NA 20x/0.5NA 40x/0.75NA 63x/1.25NA	Olympus 4x/0.16NA 10x/0.3NA 20x/0.5NA 40x/1.4NA 60x/1.25NA	ZEISS 5x/0.16NA 10x/0.3NA 20x/0.5NA 40x/1.3NA 63x/1.25NA	Olympus 4x/0.16NA 10x/0.3NA 20x/0.5NA 40x/1.4NA 60x/1.25NA	ZEISS 5x/0.16NA 10x/0.3NA 20x/0.5NA 40x/1.3NA 63x/1.25NA
Camera	5MP CMOS Color		5MP CMOS Color		5MP CMOS Color	
Slide Capacity	1 slide		9 slides		99 slides PLUS	
Barcode	Handheld 1D/2D		Handheld 1D/2D		Integrated 1D/2D	
Automated Oil Dispenser	N/A		Optional		Integrated	
Dimensions (WxDxH)	According to clients microscope		61cm x 69cm x 85cm (24"x27.2"x33.5")		100cm x 90cm x 90cm (39.4"x 35.5" x 35.5")	
Weight	According to clients microscope		45kg 99.2lb		80kg 176.4lb	

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TOKYO INSTRUMENTS, INC.

ASI APPLIED SPECTRAL IMAGING

www.spectral-imaging.com