

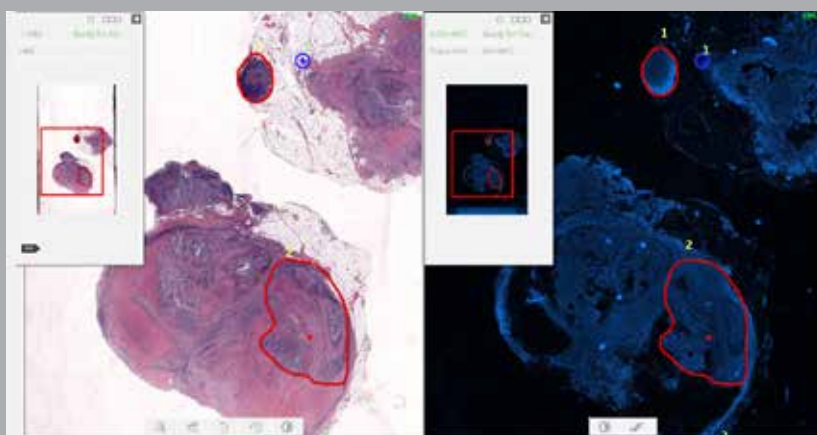
Every  
Diagnosis  
Counts

THE NEW

# PathFusion

Full Pathology Imaging Suite

H&E | IHC | FISH



POWERED BY  
GENASIS

**ASI** APPLIED  
SPECTRAL  
IMAGING

# The Ultimate Digital Pathology Workflow

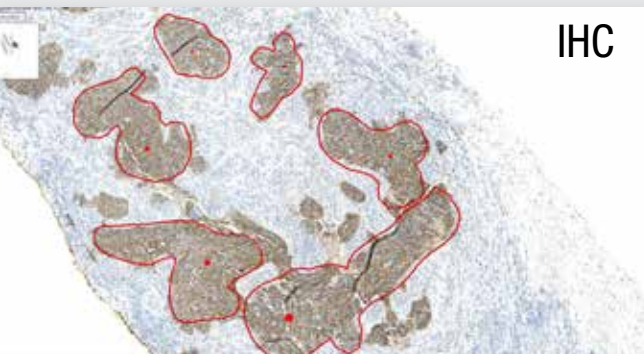
Get quantitative results in support of conclusive diagnosis

Welcome to your optimized workflow:

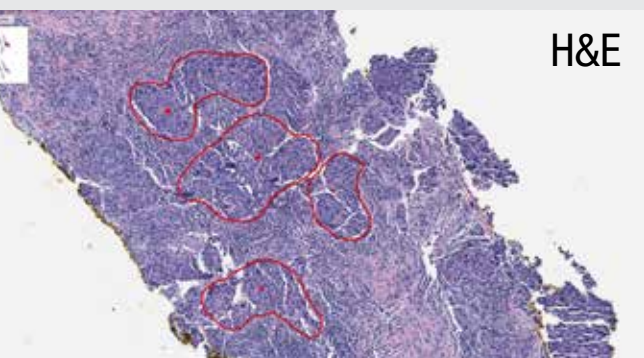
View&Mark >>> Match >>> Analyze >>> Report >>> Complete!

## 1 View & Mark

your reference slide



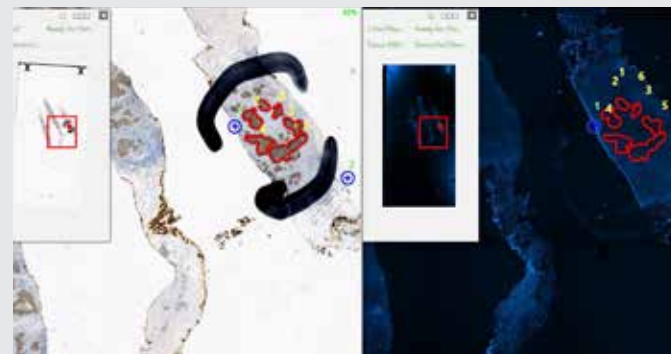
Whole Slide Imaging



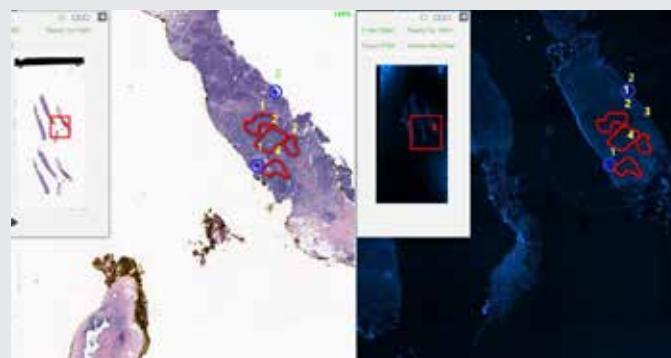
H&E

## 2 Match

H&E or IHC tissue regions with FISH

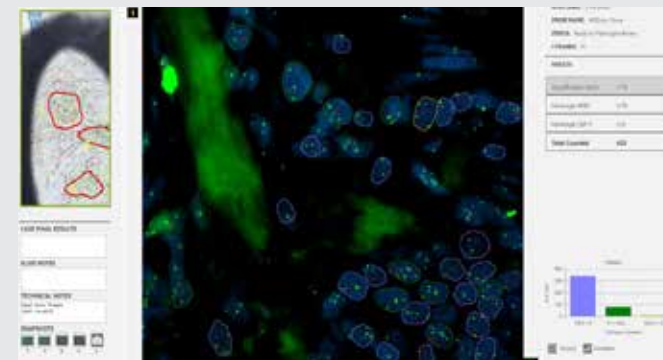


Scan selected regions of interest in high magnification for FISH analysis

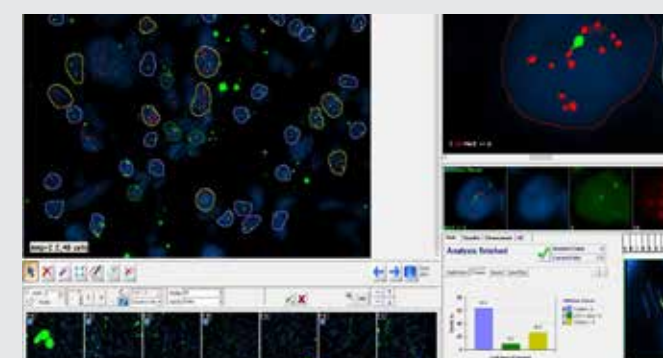


## 3 Analyze

for quantitative results



Full FISH analysis with reference map



## 4 Report

pathologist review and case sign out



Detailed custom reporting

Stain	Images	Results	Reference Ranges													
H&E			<table border="1"><thead><tr><th>Positive</th><th>Negative</th></tr></thead><tbody><tr><td>ER</td><td>&lt;1</td></tr><tr><td>PR</td><td>&lt;1</td></tr><tr><td>HER2</td><td>&lt;1</td></tr></tbody></table>	Positive	Negative	ER	<1	PR	<1	HER2	<1					
Positive	Negative															
ER	<1															
PR	<1															
HER2	<1															
Her2Neu		Counted cells: 3149 Class 0: 27.9% (2256) Class 1: 4.4% (372) Class 2: 43.0% (3687) Class 3: 24.1% (2034)	<table border="1"><thead><tr><th>Favorable</th><th>Borderline</th><th>Unfavorable</th></tr></thead><tbody><tr><td>&lt;10</td><td>10-20</td><td>&gt;20</td></tr><tr><td>Normal Expression</td><td>Borderline</td><td>Overexpression</td></tr><tr><td>Her2neu</td><td>&lt;1.8</td><td>1.8-2.2</td><td>&gt;2.2</td></tr></tbody></table>	Favorable	Borderline	Unfavorable	<10	10-20	>20	Normal Expression	Borderline	Overexpression	Her2neu	<1.8	1.8-2.2	>2.2
Favorable	Borderline	Unfavorable														
<10	10-20	>20														
Normal Expression	Borderline	Overexpression														
Her2neu	<1.8	1.8-2.2	>2.2													
Her2Neu		Scan results: AMPLIFIED Probe: Her2neu Amplification: 2.29 Counted cells: 252 Red: 5.46 Green: 2.24	<table border="1"><thead><tr><th colspan="2">Case Results</th></tr><tr><th colspan="2">Comments</th></tr></thead></table>	Case Results		Comments										
Case Results																
Comments																

# 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

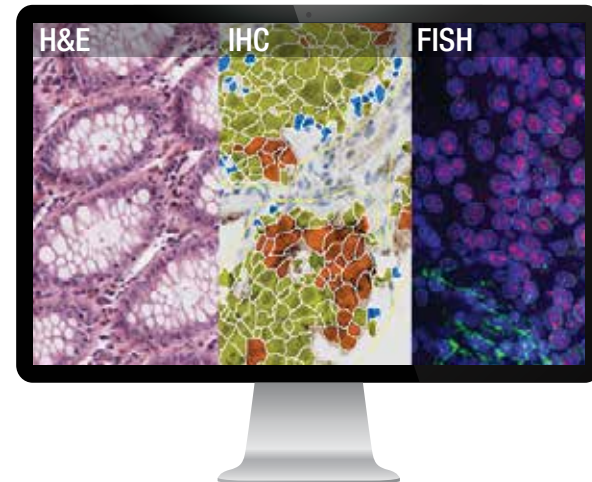
## Diagnostic Confidence

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.”

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

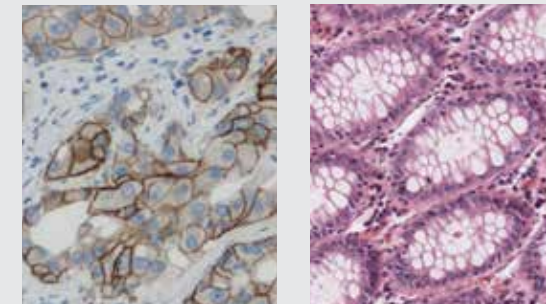
# Digitize Your Slides Start & Walkaway Scanning

## Efficiency, Accuracy, Ease-of-Use



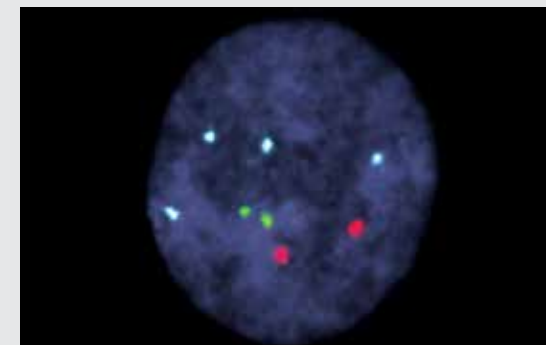
## User Independent Scanning

Unattended continuous scanning increases lab productivity and supports greater slide volumes



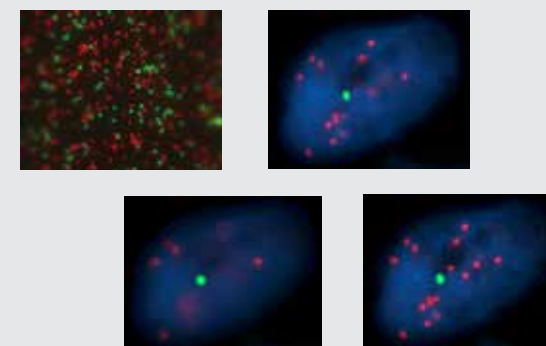
## Whole Slide Imaging

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



## High Image Quality

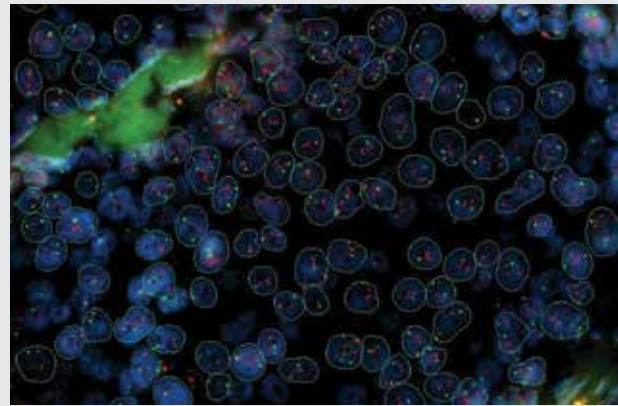
High sensitivity sensor, high quality immersion oil, 60X plan apochromatic objective, fluorescent filter control, auto-exposure, anti-debris algorithms and automatic image enhancement.



## 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:

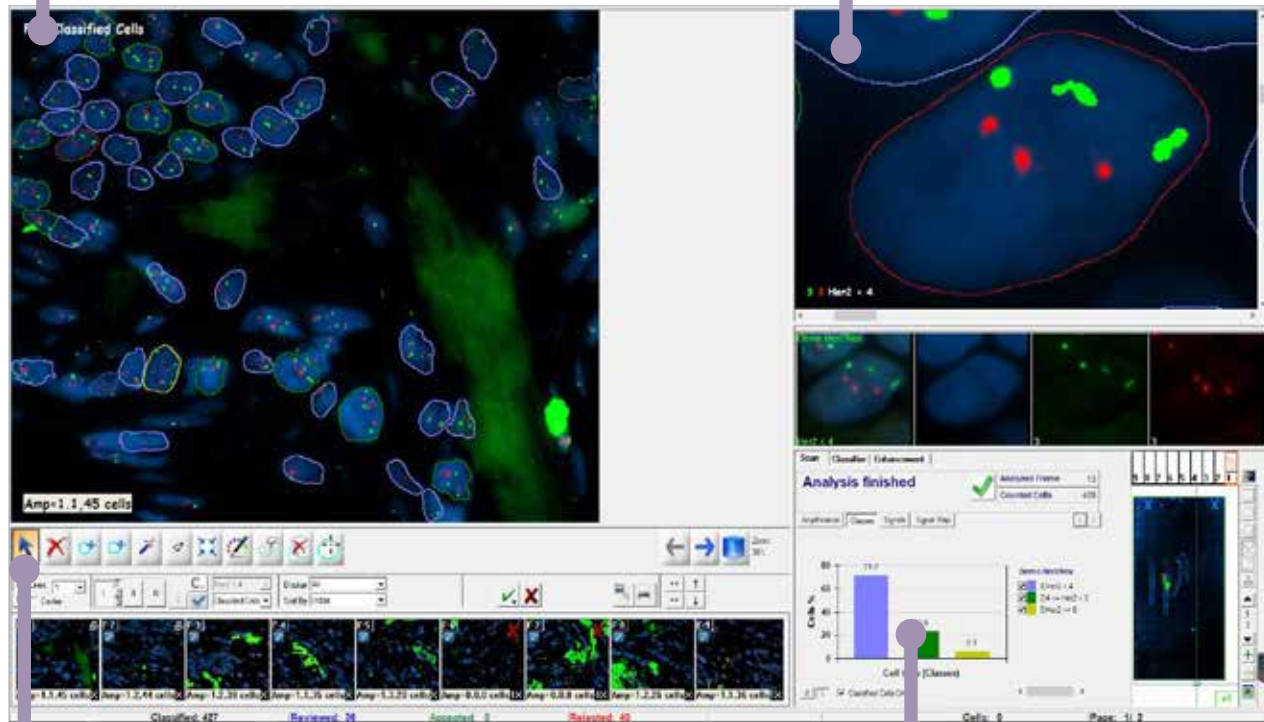
Proprietary algorithms for automated cell identification, signal detection and classification bring you highly accurate, standardized and reliable results.

## 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



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

Quantitative analysis with pre-defined stop criteria and detailed results

# Unlimited FISH Analysis across sample types

## Vast Clinical Use

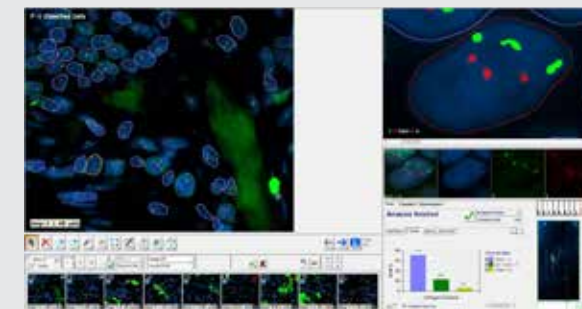
- ✓ Breast
- ✓ Lung
- ✓ Prostate
- ✓ Gastrointestinal
- ✓ Skin
- ✓ Bladder
- ✓ Brain
- ✓ Cervix
- ✓ Bone Marrow
- ✓ Blood
- ✓ Lymph nodes

"Digital FISH analysis provides more efficient and accurate results and better patient care in comparison to traditional FISH methods."

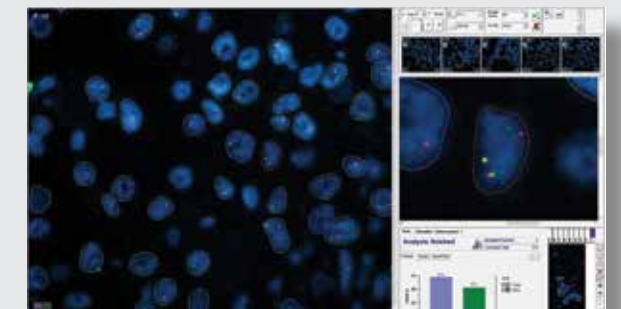
Liew M, Rowe L, Clement PW, Miles RR, Salama ME., J Pathol Inform

Vendor neutral probes compatible with all sample types, does not limit your probes selection.

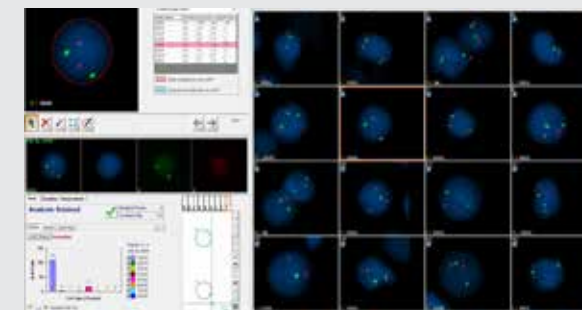
## HER2/neu (Breast)



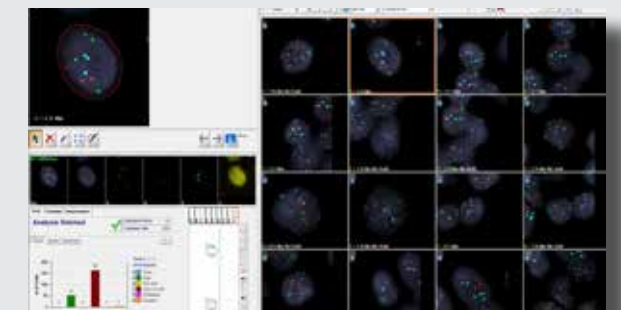
## ALK (Lung)



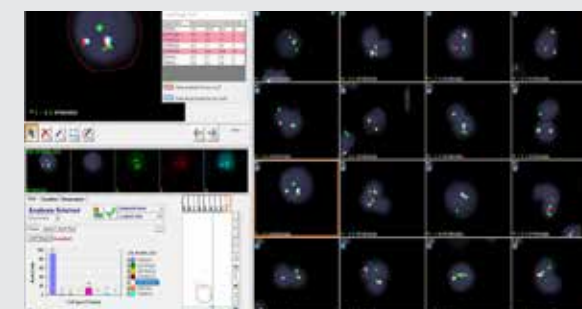
## Hematology Enumeration



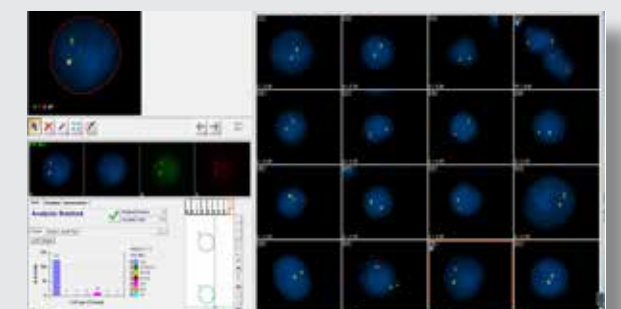
## UroVysion



## Hematology Fusion

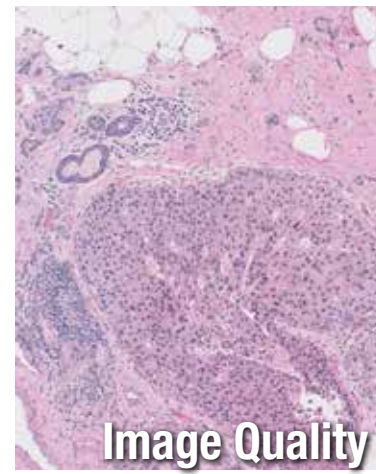


## Breakpart



# 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...**

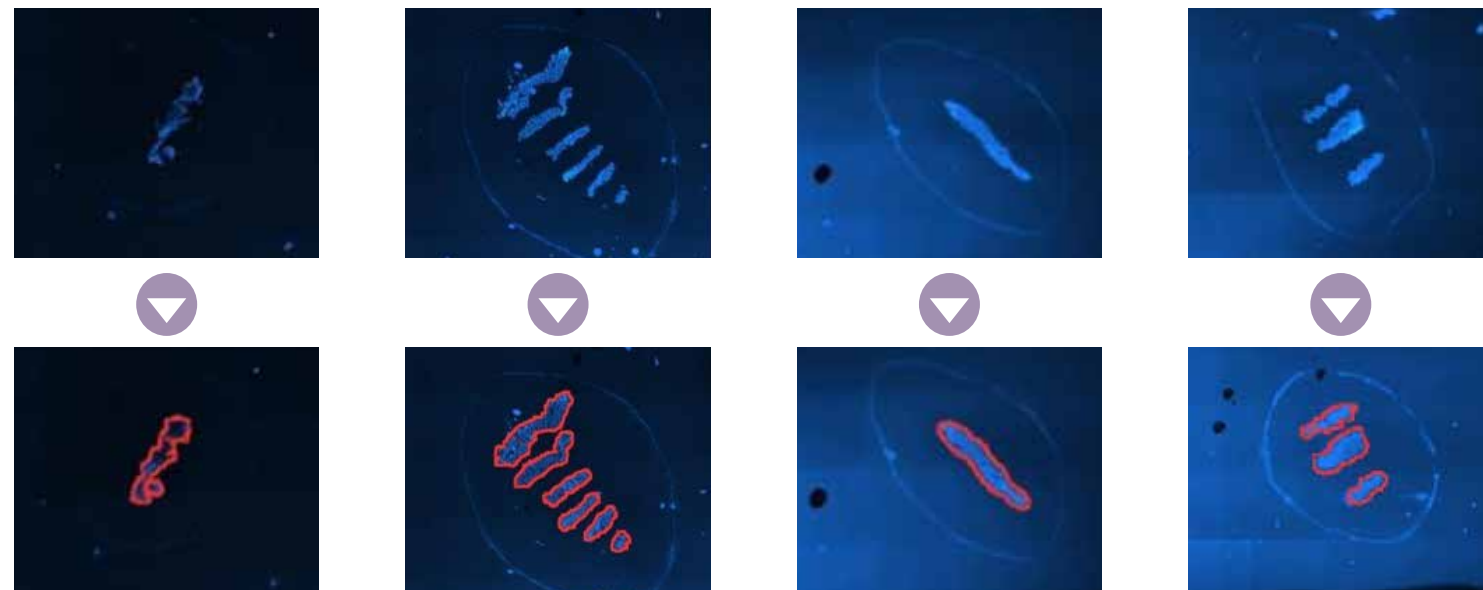


## Artificial Intelligence based Algorithms: FISH Tissue Detection

### 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

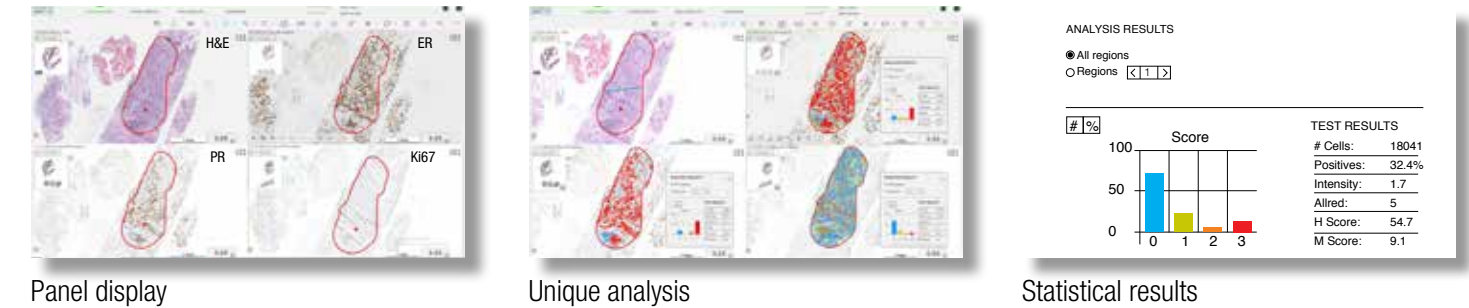
#### DAPI



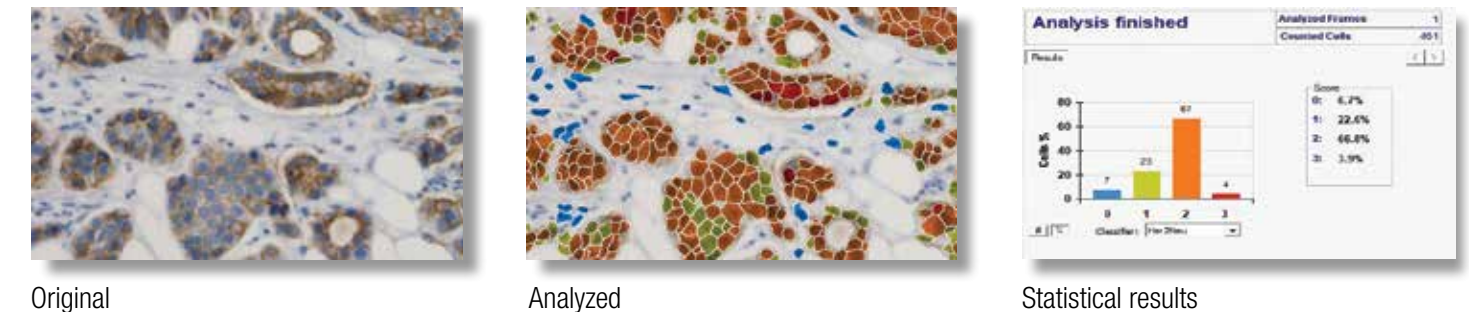
#### Tissue Identified

# Integrate IHC for more testing capabilities

## IHC automated workflow on WSI with panel display



## \*IHC manual workflow with digital analysis for standardization



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



- ✓ Efficient
- ✓ Comprehensive
- ✓ Eliminates human error

# 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



### 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 60 countries. 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.

ASI's wide FDA clearance portfolio includes: FDA clearance for BandView, FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH, and for HiPath IHC Family for HER2, ER, PR, and Ki67, on the manual configuration

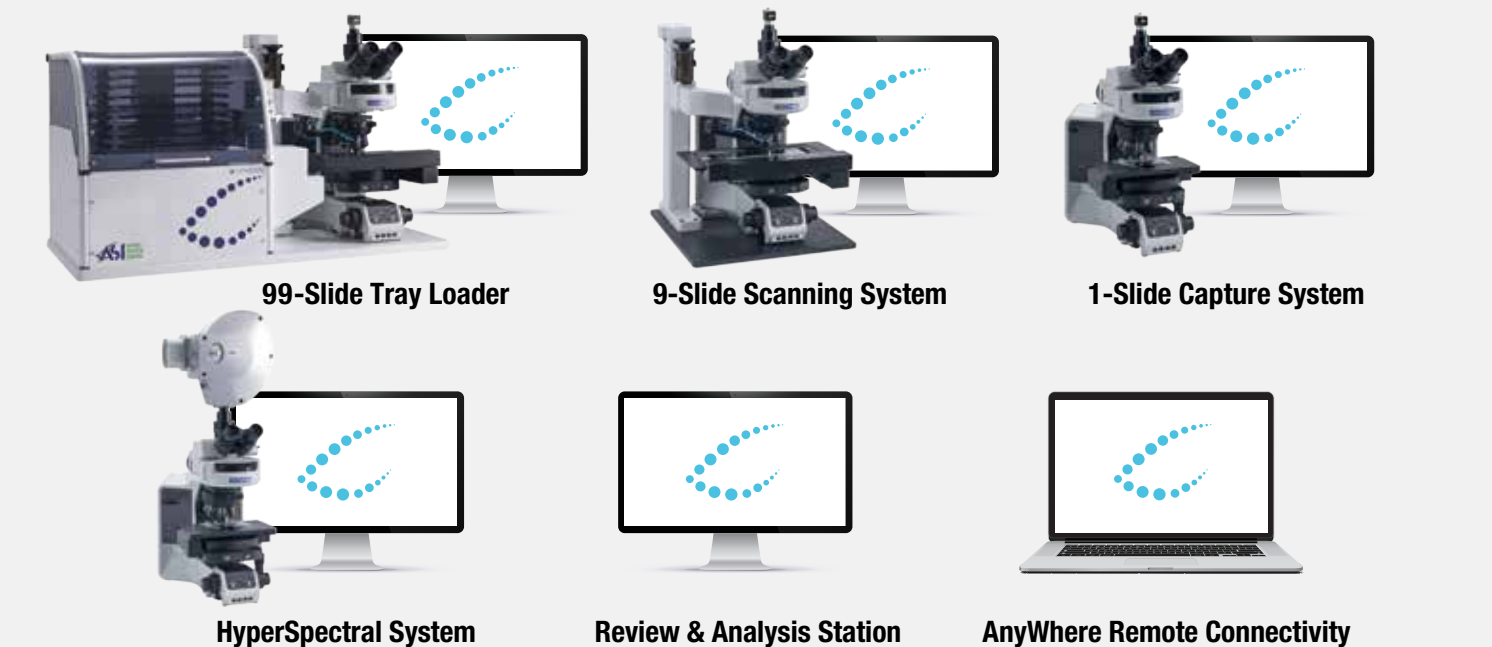
The Company has offices in the US and Asia and a global network of distribution partners.

## Product Portfolio

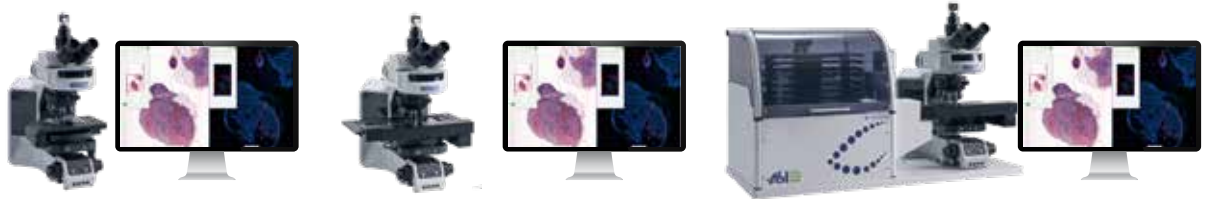
Cytogenetics Pathology Research



### Diverse platforms to accommodate all laboratory needs

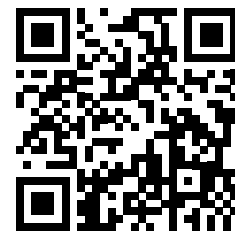


# System Specifications



	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 Axiomager Z2 BF+FL		OLYMPUS BX61 BF+FL OLYMPUS BX63 BF+FL ZEISS Axiomager 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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