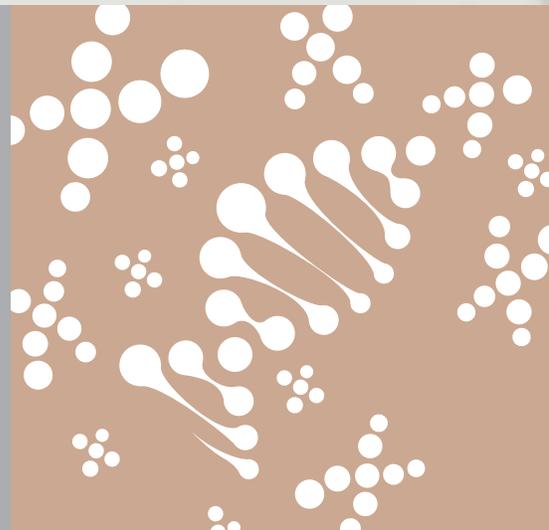
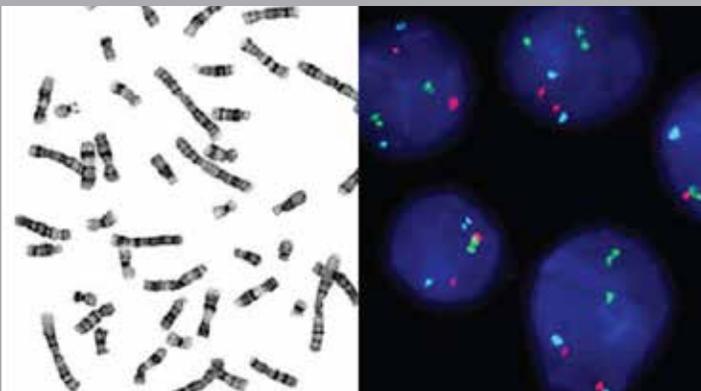




Every
Diagnosis
Counts

CytoPower

Digital Karyotyping & FISH Analysis



POWERED BY
GENASIS

ASI APPLIED
SPECTRAL
IMAGING

A Complete Cytogenetics Workflow

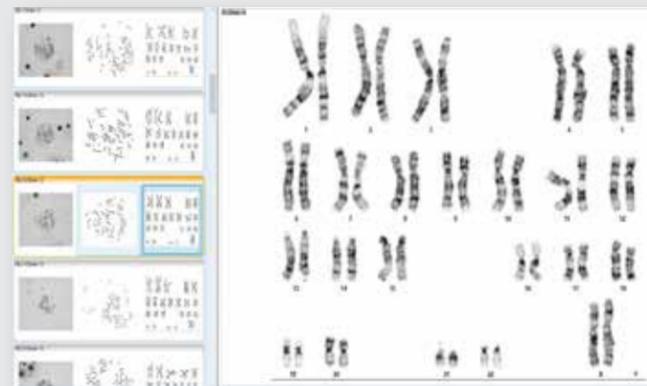
Scan ►►► Analyze ►►► Review ►►► Report ►►► Complete!

1 Scan & Capture

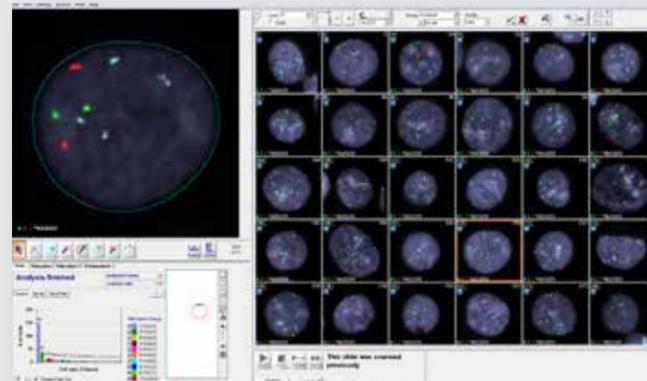


Digitize your slides.
Capture both metaphase and
interphase cells for analysis

2 View & Analyze



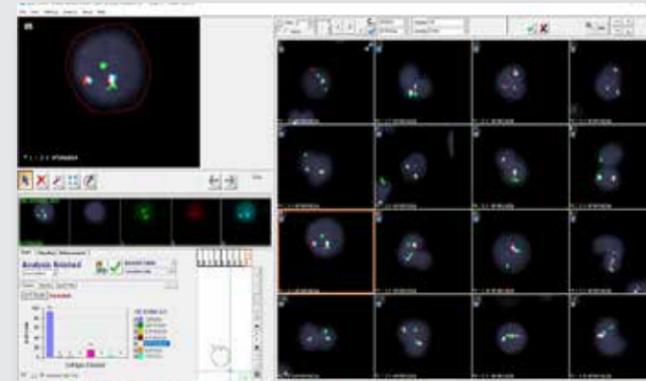
One platform to analyze chromosomes
and classify FISH cells



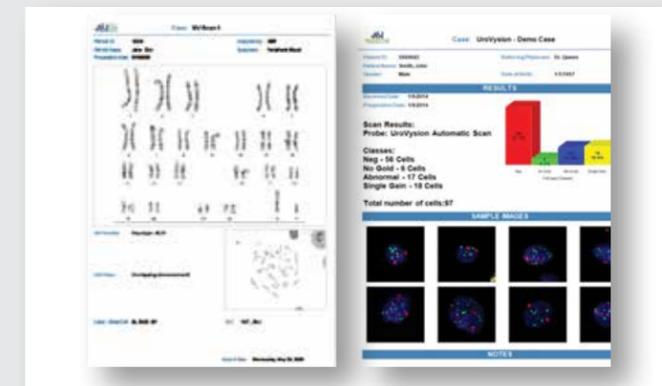
3 Review & Sign-Off



Click of a button karyotype and real-
time statistical results on signals

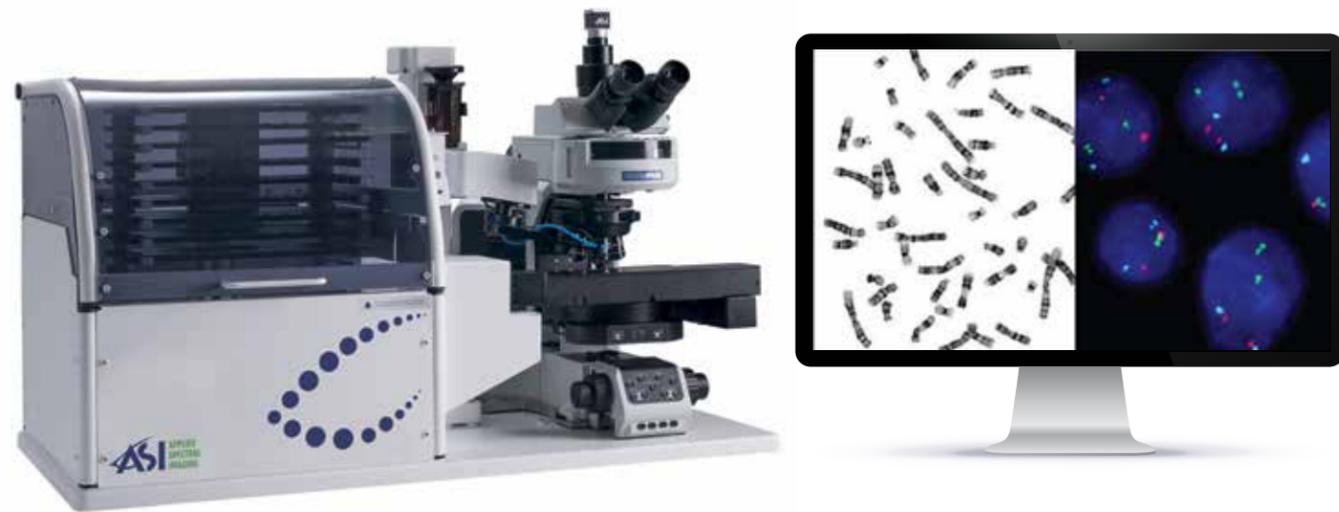


4 Report



Submit comprehensive case details

Cutting edge scanning, imaging and analysis instrumentation for karyotyping and FISH



"CytoPower doubled our lab productivity in bone marrow karyotyping and tripled our productivity in blood sample karyotyping."

Nettie Rietema, University Medical Center Groningen, NL

Benefits to your lab

- ✓ **Higher diagnostic confidence**
- ✓ Automatic metaphase and interphase finder for **faster results**
- ✓ **Validated analysis tools** for standardization across users
- ✓ **Data management** for performance metrics

Cytogenetics Imaging Suite

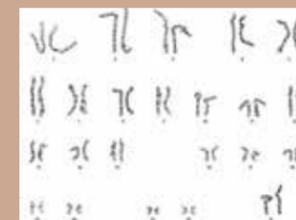
An all-in-one imaging & analysis solution for digital artificial intelligence (AI) karyotyping and FISH diagnostics. Automated workflows, powerful algorithms and feature-rich software provide optimized lab productivity and greater confidence in patient assessment for Cytogenetic labs.

Cytogenetic Clinical Applications for all sample types:

- ✓ Chromosomal Abnormalities
- ✓ Structural and Numerical Changes
- ✓ Prenatal Amniotic Fluid
- ✓ Postnatal Blood
- ✓ Bone Marrow Cancer Genetics

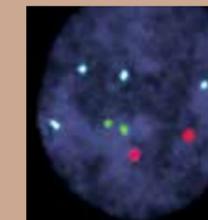
Hematology FISH Workflow:

Karyotyping Brightfield
Microscopy



&

FISH
Fluorescence Microscopy



Diagnostics
&
Treatment

Digital Chromosome Analysis You Can Rely On

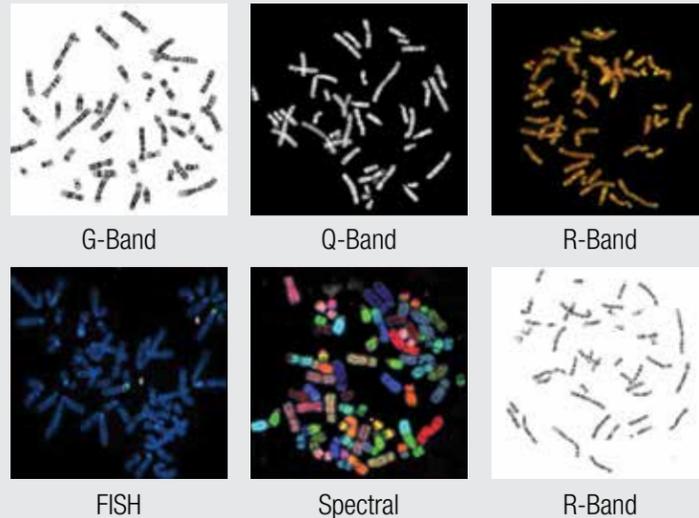
Efficiency, Precision, Versatility

State of the Art Image Quality Start & Walkaway Scanning



High resolution 5MP camera sensor combined with a high quality 100x immersion oil objective

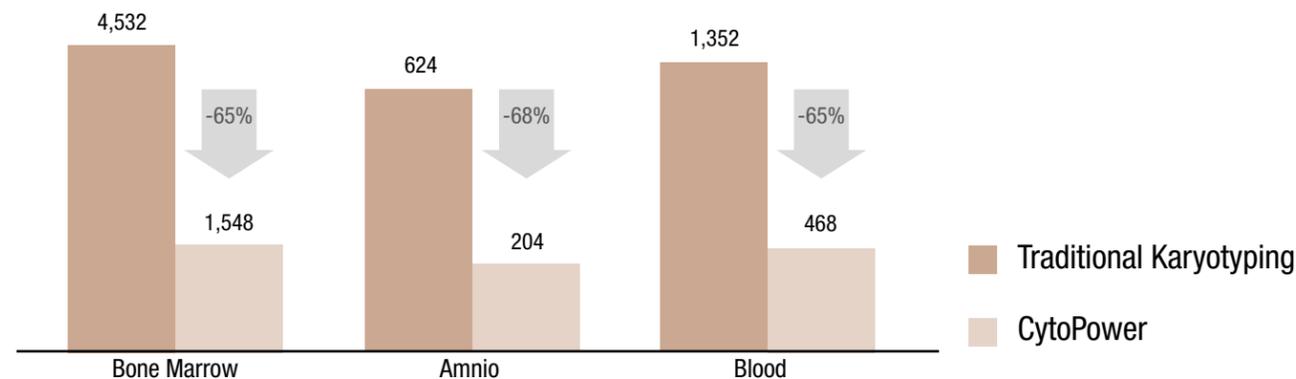
Broad Staining and Sample Menu



✓ Blood ✓ Bone Marrow ✓ Amniotic Fluid ✓ CVS

Increased Lab Productivity

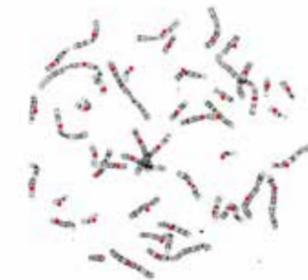
66% Technologist Time Savings (Hours / Month)



Free technologist time to where their expertise is needed most

Comprehensive Working Platform

Feature Rich Review & Analysis



Count

Accurate automatic chromosome counting



Analyze

Fast and easy chromosome indexing and classification

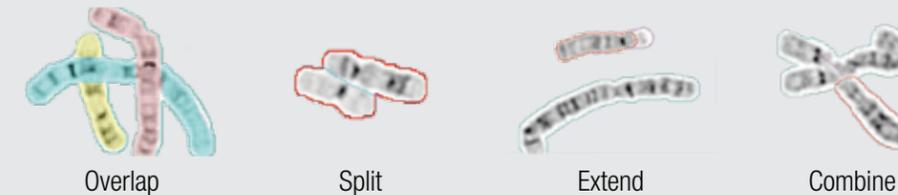


Karyotype

High accuracy of automated karyotyping, with auto ISCN, auto bands estimation and auto overlap score

Easy Separation and Boundary Editing

“Magic Tool” combining 12 operations in a simple mouse click



Saves hundreds of mouse-clicks per karyotype!

Advanced Onscreen Supervisor or Director Review

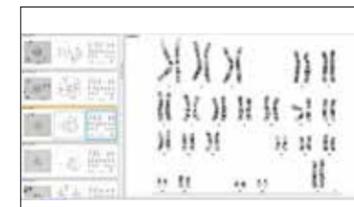


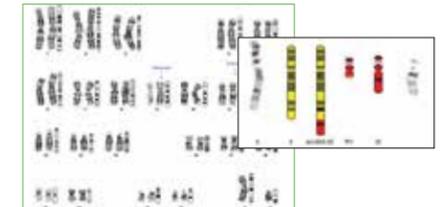
Image Gallery

Display of all case metaphases and karyotypes



Chromosome Compare

All captured cells and chromosomes side by side



Aberrant Ideogram

Chromosomes, cells, ideograms and annotations in an image generator

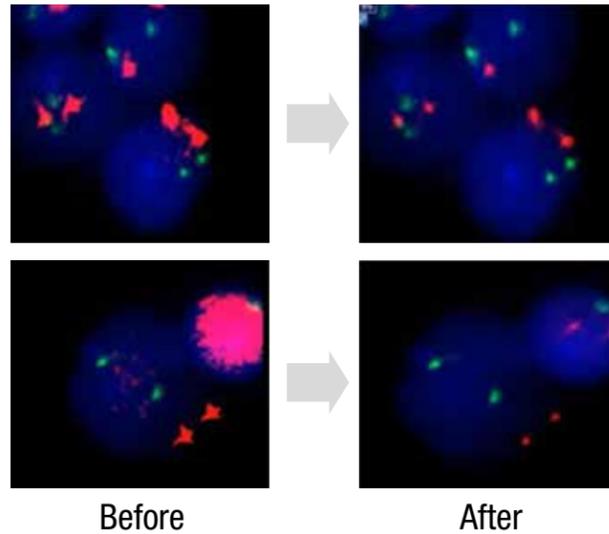
Digital FISH Analysis

Accuracy, Consistency, Ease-of-Use

Robust Image Quality Through Adaptive Statistical Algorithms

Validated to identify what the human eye may not see for standardized results

- ✓ Sophisticated acquisition parameters optimization
- ✓ Consistent signals appearance across sample
- ✓ Reduction of external debris and nuclear noise
- ✓ Eliminated need for manual parameters manipulation
- ✓ Ideal visualization & classification

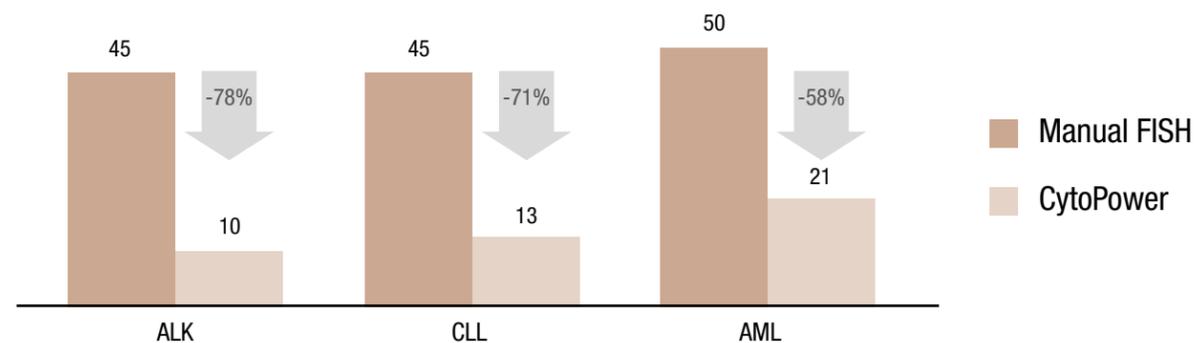


“Digital FISH analysis provides more efficient and accurate results and better patient care in comparison to traditional FISH methods.”

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

Workflow Efficiencies for Increasing Test Volumes

Over 55% Time Savings (Minutes / Case)

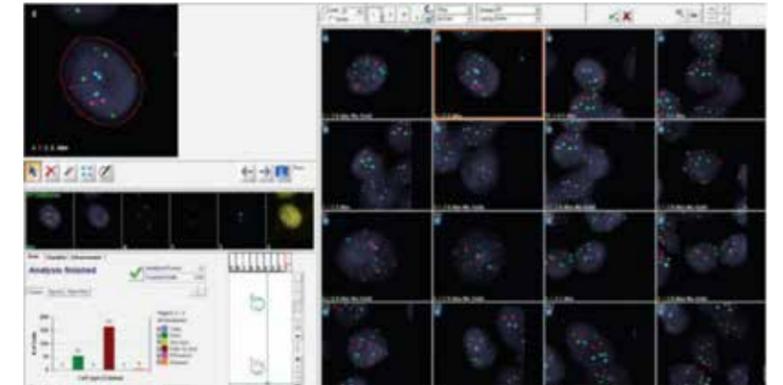


In-depth Cell Analysis

Diagnostic Confidence

Improved Patient Care Through Better Results

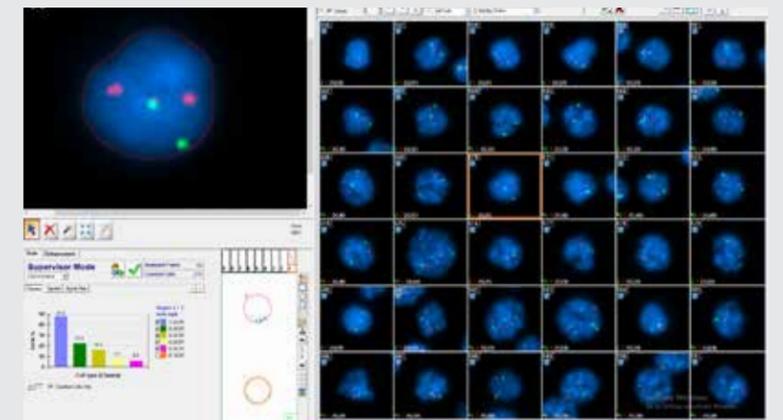
- ✓ Robust and consistent high image **quality**
- ✓ No signal missed with 3D capture
- ✓ **Accurate** signal detection and cell classification
- ✓ **Robust signal visualization**
- ✓ Automatic **detection of abnormal patterns**
- ✓ **Consistent**, standardized and reliable results
- ✓ Probe vendor-agnostic



Versatile FISH review and analysis workflows

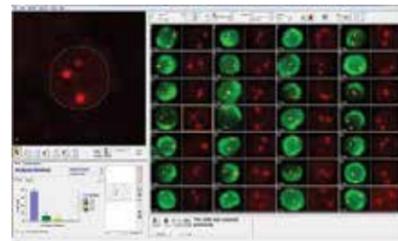
Flexible to match your laboratory needs

- ✓ Multi-reader double blinded analysis
- ✓ Supports multi-well slides
- ✓ Status indication per region
- ✓ Informative slide statuses for better workflow management
- ✓ Integrated QC application

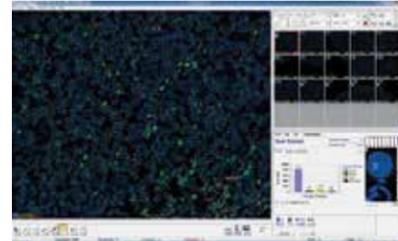


CytoPower for Research Applications

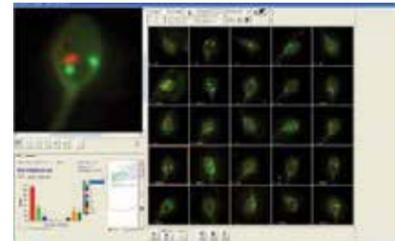
FISH Research



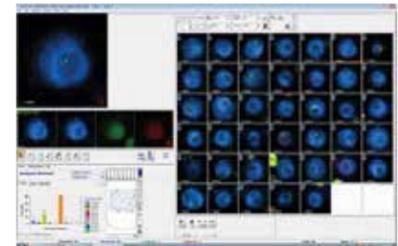
Circulating Tumor Cells



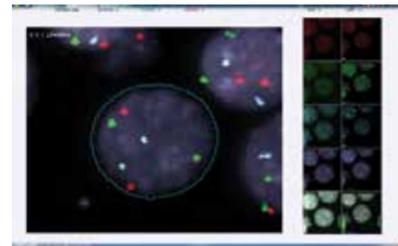
Immuno Fluorescence



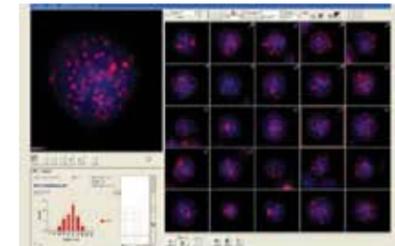
Sperm Cells



clgFISH



Successive Staining



Telomeres

Scan finished

Analyzed Frames: 15
Counted Cells: 10463

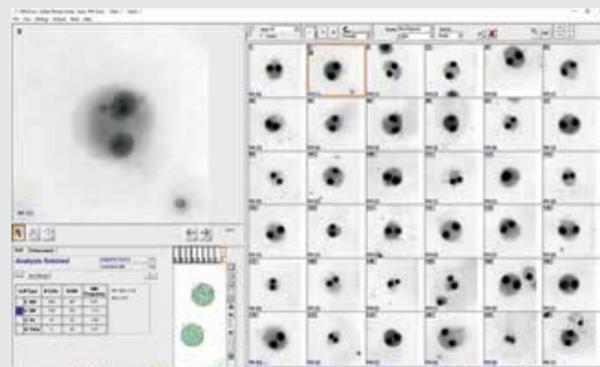
Cell #	Area	Circularity	Class	DAPI	DAPI	DAPI	DAPI
5647	211	1.448	DAPI	24478	29483	24024	0
4308	212	1.198	DAPI	30180	48642	48216	0
4264	210	1.372	DAPI	46603	48267	62268	0
1706	208	1.433	DAPI	77888	52998	50821	0
8231	209	1.377	DAPI	67888	50847	50825	0
2791	214	1.891	DAPI	21027	58324	59982	0
292	215	1.328	DAPI	89989	88718	81414	0
1787	210	1.282	DAPI	72877	82202	81830	0
6854	182	1.198	DAPI	183387	72972	81828	0
2683	228	1.884	DAPI	98221	98889	82478	0
3281	287	1.468	DAPI	94213	98151	94413	0
2478	217	1.198	DAPI	70420	80970	80104	0

Export to CSV:
 Ploidy
 Color Intensity
 SNR

Classified: 10463 Reviewed: 10

Quality Control of Probe Assays

Cell phenotyping and signal classification
Measurement and display of multiple cellular and signal properties



MN Score

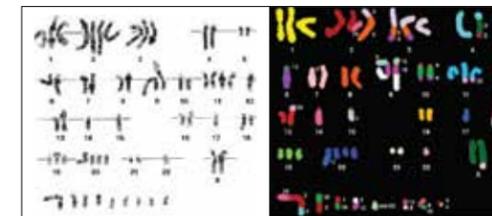
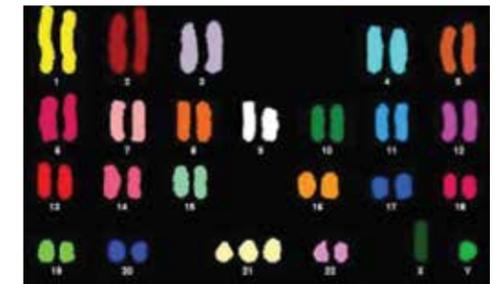
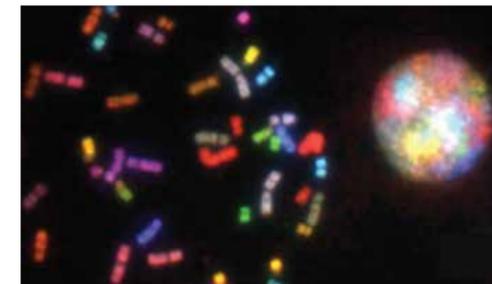
Micronuclei imaging, scoring and analysis for measurement of DNA damage, cytostasis and cytotoxicity

HiSKY*

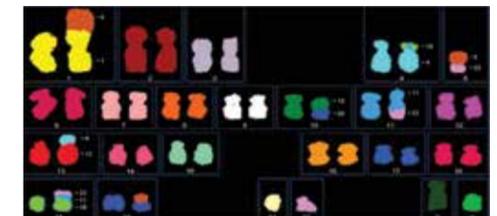
Gold Standard Spectral Karyotyping

Multi-Color FISH Analysis for Result Verification

- ✓ Automatic identification of translocations and chromosomal origins
- ✓ Simultaneous detection of chromosomal aberrations in one hybridization
- ✓ Measurement of entire spectrum at each point



Brain Tumor



Ewing Sarcoma

*HiSKY is an add on application for research purposes

HiSKY Probe Kit

Chromosome paints for:

- ✓ Human
- ✓ Mouse

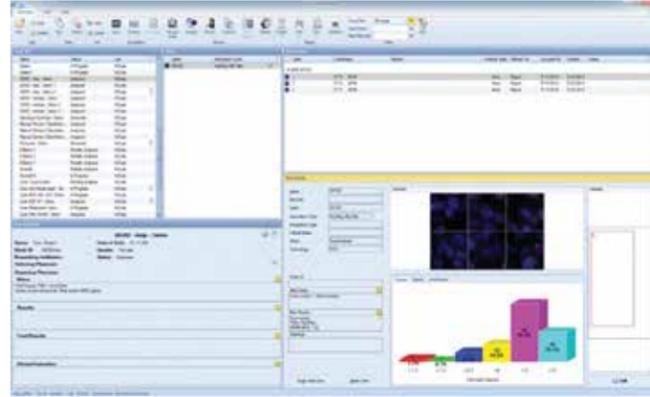


Data Management and Connectivity

Modern Paperless Workflow

Central Portal and Database

Easily Integrates with Lab Information System (LIS)



Case Data Management (CDM)

- ✓ Efficient
- ✓ Comprehensive
- ✓ Eliminates human error

Become a Data-Driven Lab with LabLife™

Generate lab performance statistics



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

GenASIs AnyWhere™

A Virtual Laboratory

GenASIs™ AnyWhere is Applied Spectral Imaging's complete remote access solution enabling HIPAA-compliant access, review, analysis, and sign-off of cases from any location, via a secure link to your lab's GenASIs platform.

In today's world, working remotely has become a necessity.

- ✓ Optimal for remote consultation, educational and training needs
- ✓ Uncompromised data security
- ✓ Efficient management and maintenance of multiple systems, and users
- ✓ Distance-bridging for multi-site and geographically distributed organizations
- ✓ Increases productivity and reduces turnaround time



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 90 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.

Global Presence

4,500

Systems installed worldwide

86

Countries through direct & indirect sales forces

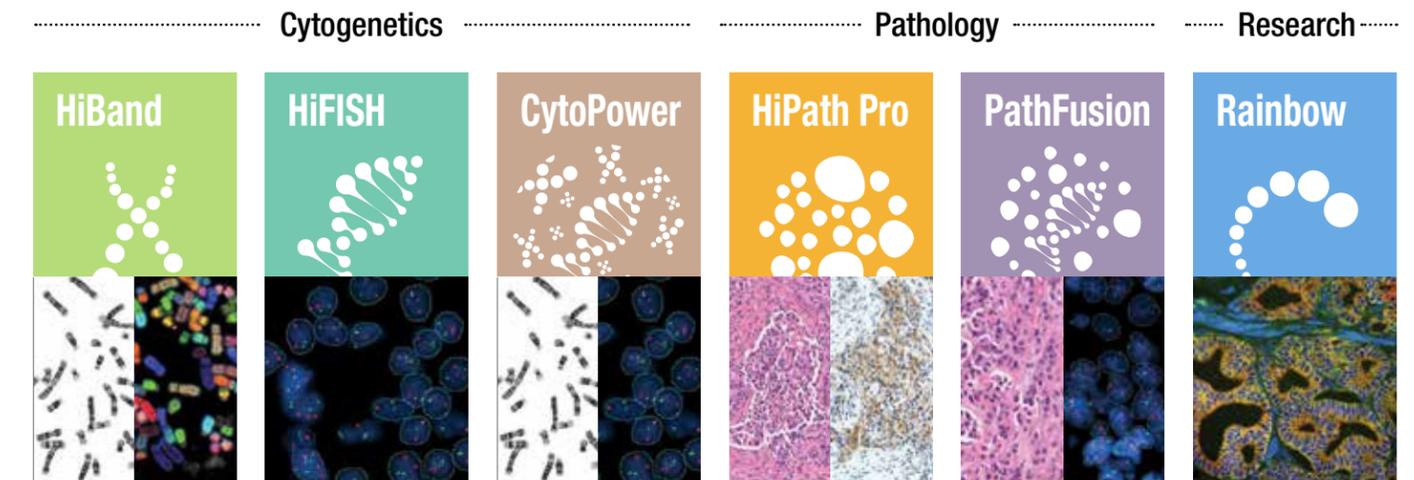
71

Third party distribution partners

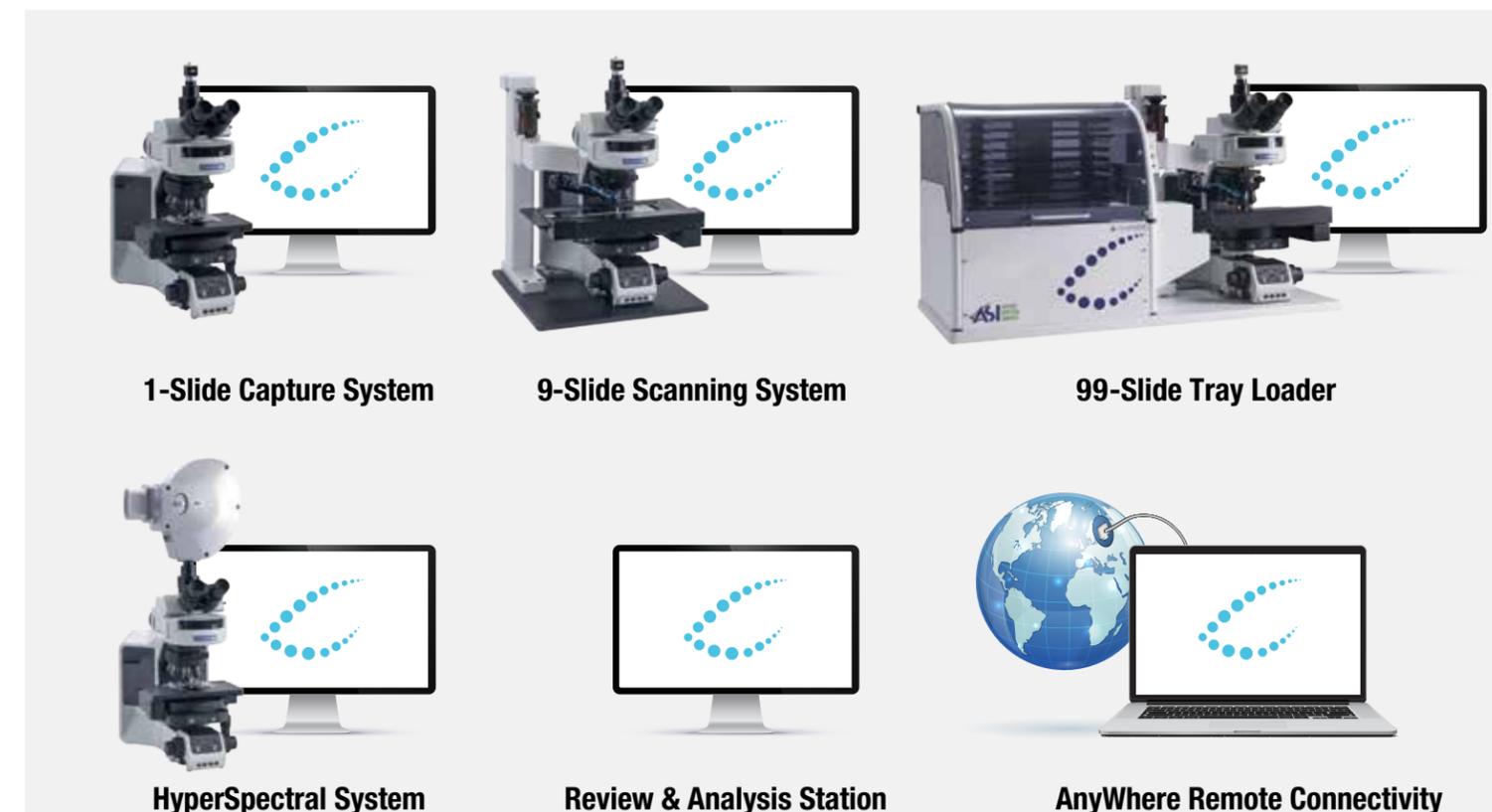


The Company's Product Portfolio

Exceptional Imaging & Analysis Solutions for Laboratories



Diverse platforms to accommodate all laboratory needs



System Specifications



	Manual 1 Slide		9 Slide Motorized Stage		99 Slide Tray Loader		HyperSpectral 1 Slide
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+ FL		BF and FL upright microscopes
Objectives	Olympus 10x/0.3NA 60x/1.25NA 100x/1.3NA	ZEISS 10x/0.3NA 63x/1.25NA 100x/1.3NA	Olympus 1.25x/0.04NA 10x/0.3NA 60x/1.25NA 100x/1.3NA	ZEISS 1.25x/0.03NA 10x/0.3NA 63x/1.25NA 100x/1.3NA	Olympus 1.25x/0.04NA 10x/0.3NA 60x/1.25NA 100x/1.3NA	ZEISS 1.25x/0.03NA 10x/0.3NA 63x/1.25NA 100x/1.3NA	10x/0.3 60x/1.42 or 63x/1.25 100x/1.3
Camera	5MP CMOS Monochrome		5MP CMOS Monochrome		5MP CMOS Monochrome		Spectral 1.3MP Monochrome
Slide Capacity	1 slide (Manual or Motorized)		9 slides		99+ slides		Manual 1 slide
Barcode Reader	Handheld 1D/2D		Handheld 1D/2D		Integrated 1D/2D		Handheld 1D/2D
Automated Oil Dispenser	N/A		Optional		Integrated		N/A
Dimensions [WxDxH]	According to clients microscope		61cm x 69cm x 85cm (24" x 27.2" x 33.5")		100cm x 90cm x 90cm (39.4" x 35.5" x 35.5")		According to clients microscope
Weight	According to clients microscope		45kg 99.2lb		80kg 176.4lb		According to clients microscope

SCAN ME



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