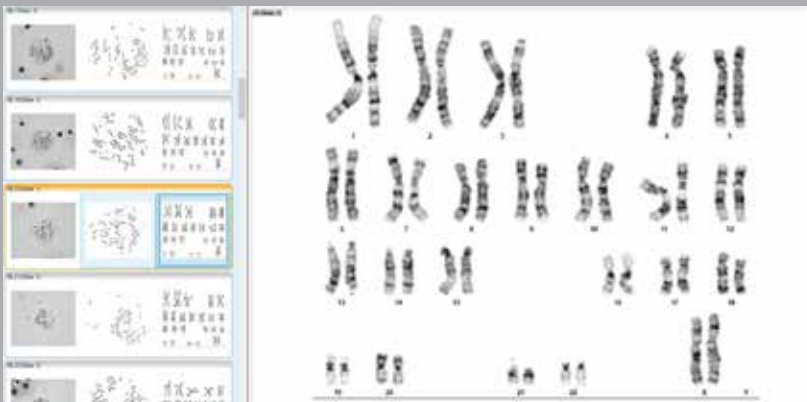




Every  
Diagnosis  
Counts

# HiBand

Artificial Intelligence based Chromosome Analysis  
and Karyotyping Solution



POWERED BY  
**GENASIS**

**ASI** APPLIED  
SPECTRAL  
IMAGING

# A Novel End-to-End Automated Cytogenetic Workflow for High Throughput Karyotyping

**Digitize slides, analyze chromosomes and karyotype in a click of a button**

For the accurate identification of genetic abnormalities and cancers

# 1

**Scan  
& Capture**



Digitize your slide. Metaphase Finder identifies the best cells for analysis.

# 2

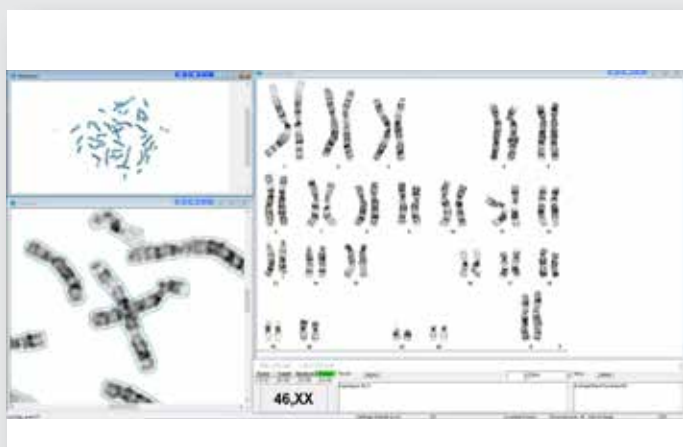
**Preview**



Successfully segmented and karyotyped metaphases are available for review and approval while scanning.

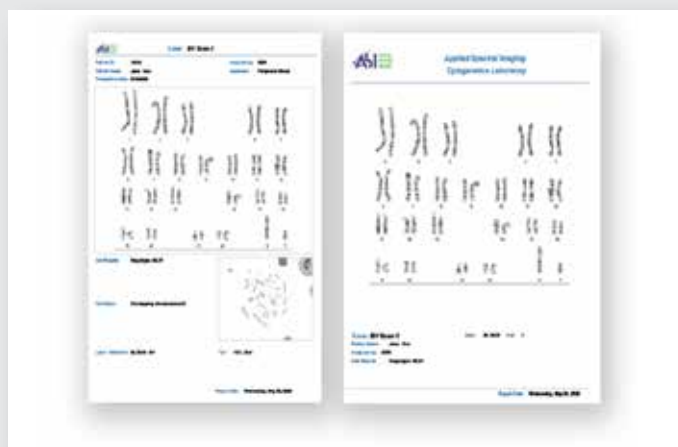
Scan&Capture >>> Preview >>> Approve Analysis >>> Report >>> Complete!

## Approve Analysis



Karyotype at a click of a button based on AI features analysis.

## Report



Submit a customized report with full case details.

# Digital Chromosome Analysis System



## Optimized Productivity

Fully automated workflow, digital AI features analysis and full integration maximize lab efficiency



## Diagnostic Confidence

Smart scanning, superb image quality and powerful algorithms



## Turnaround Time

is significantly reduced

**Cutting edge scanning, imaging and analysis instrumentation using AI features for high throughput**



**“HiBand doubled our lab productivity in Bone Marrow samples and tripled our productivity in Blood samples.”**

Nettie Rietema, University Medical Center Groningen, NL

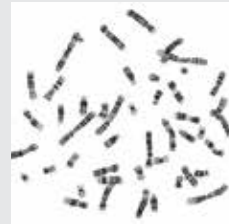
# Automatic Slide Scanning and Metaphase Finder

## Classifier Captures the Best Metaphases for Analysis

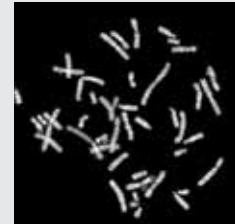


High resolution 5MP camera sensor combined with a high quality 100x immersion oil objective

### Broad Staining and Sample Menu



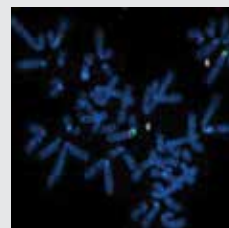
G-Band



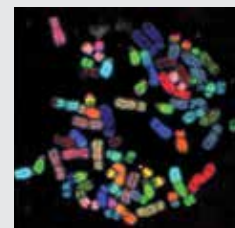
Q-Band



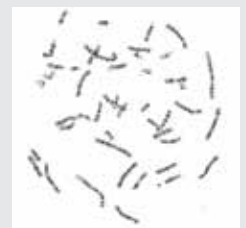
R-Band FL



FISH



Spectral

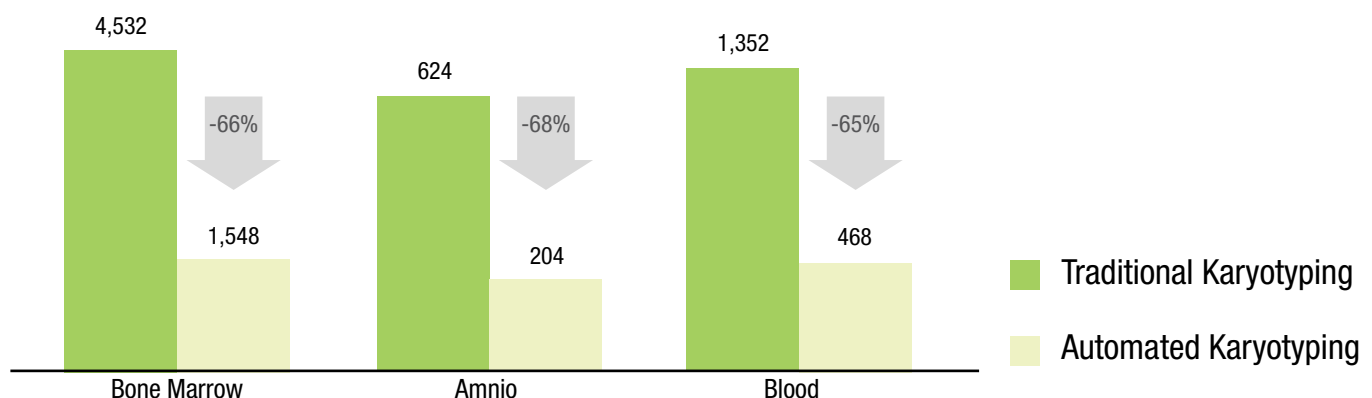


R-Band

✓ Blood ✓ Bone Marrow ✓ Amniotic Fluid ✓ CVS

## Increased Lab Productivity with Digital Karyotyping

### 66% Technologist Time Saving (Hours / Month)

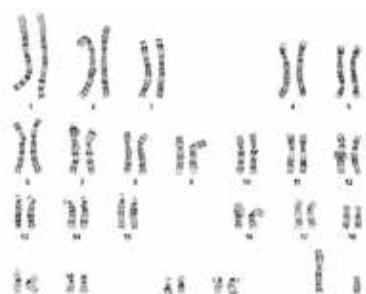


Free technologist time to where their expertise is needed most



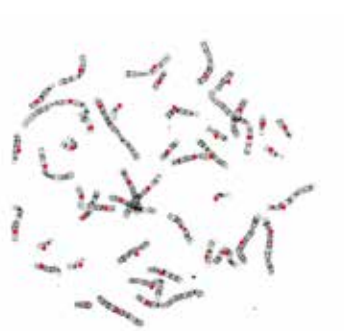
# Feature Rich Review & Analysis

Functional Tools for Accurate Analysis- Quality, Accuracy, Ease-of-Use



## Karyotype

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



## Count

Accurate automatic chromosome counting

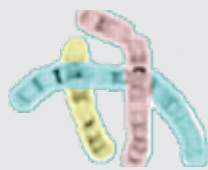


## Analyze

Fast and easy chromosome indexing and classification

## Easy Separation and Boundary Editing

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



Overlap



Split



Extend

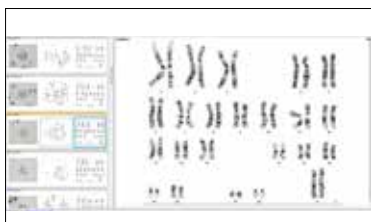


Combine



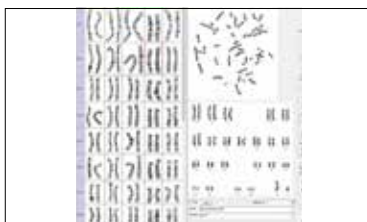
Saves hundreds of mouse-clicks per karyotype!

## Advanced Onscreen Supervisor or Director Review



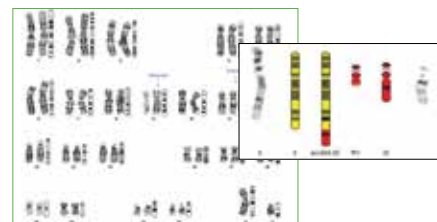
## Image Gallery

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



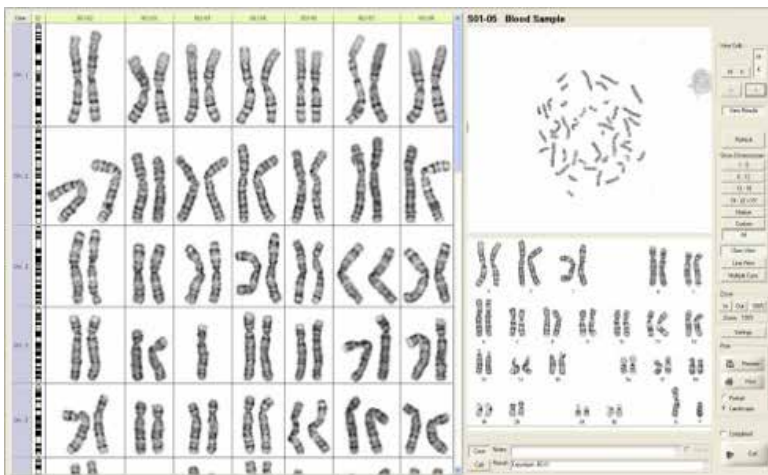
# Single Click Access to Reference Database

## Reference Atlas for higher assurance

Internet toolbar with selection of predefined karyotyping websites, provides the expert support you need to investigate, research, and confirm challenging abnormalities.

This feature is located in BandView's toolbar for easy access during the analysis process.

## Chromosome Compare

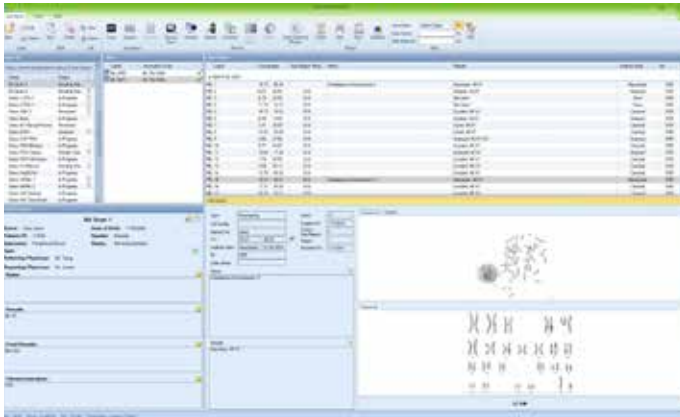


- ✓ Compare chromosomes within and between cases
- ✓ Display homolog chromosomes either by row or column view
- ✓ View chromosomes by groups or custom view
- ✓ Navigate to view all cells associated within the case
- ✓ Side-by-side G-band, FISH and HiSKY chromosome views

# 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

Ref	Lab	Q#	Condition	Results	Notes	Date
1	BL 1000	1	9774.0.00	Analysed 05.07	Completed	2005
2	BL 1000	2	9774.0.00	Analysed 05.07		2005
3	BL 1000	3	9774.0.00	Analysed 05.07		2005
4	BL 1000	4	9774.0.00	Analysed 05.07		2005
5	BL 1000	5	9774.0.00	Analysed 05.07		2005
6	BL 1000	6	9774.0.00	Analysed 05.07		2005
7	BL 1000	7	9774.0.00	Analysed 05.07		2005
8	BL 1000	8	9774.0.00	Analysed 05.07		2005
9	BL 1000	9	9774.0.00	Analysed 05.07		2005
10	BL 1000	10	9774.0.00	Analysed 05.07		2005
11	BL 1000	11	9774.0.00	Analysed 05.07		2005
12	BL 1000	12	9774.0.00	Analysed 05.07		2005
13	BL 1000	13	9774.0.00	Analysed 05.07		2005
14	BL 1000	14	9774.0.00	Analysed 05.07		2005
15	BL 1000	15	9774.0.00	Analysed 05.07		2005
16	BL 1000	16	9774.0.00	Analysed 05.07		2005
17	BL 1000	17	9774.0.00	Analysed 05.07		2005
18	BL 1000	18	9774.0.00	Analysed 05.07		2005
19	BL 1000	19	9774.0.00	Analysed 05.07		2005
20	BL 1000	20	9774.0.00	Analysed 05.07		2005
21	BL 1000	21	9774.0.00	Analysed 05.07		2005
22	BL 1000	22	9774.0.00	Analysed 05.07		2005

## 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

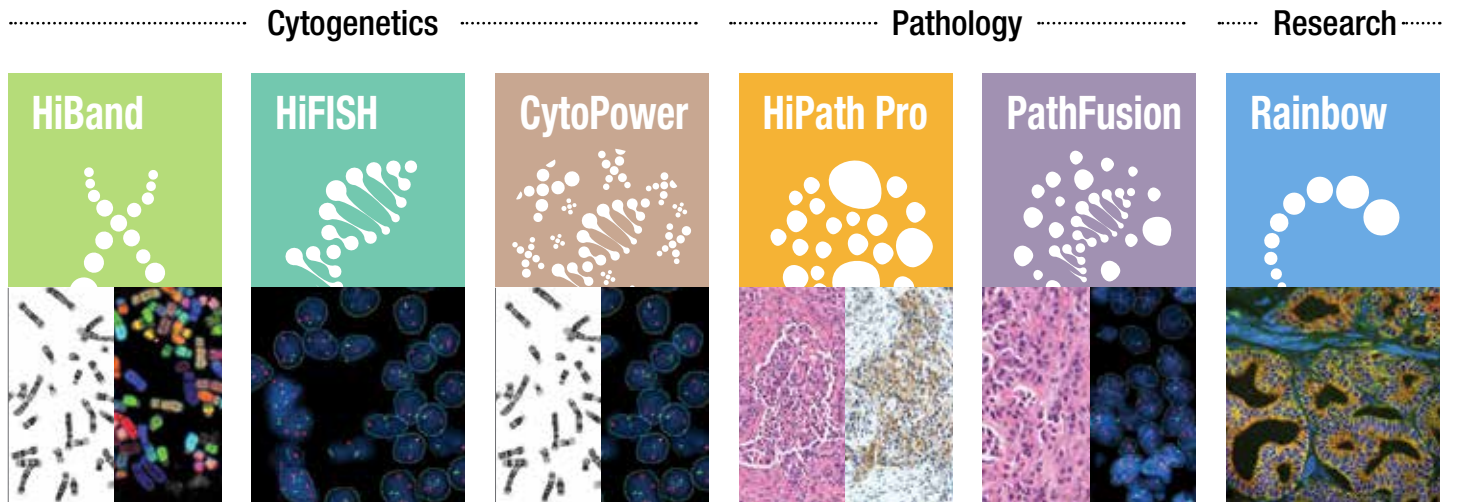
71

Third party distribution  
partners



# The Company's Product Portfolio

## Imaging & Analysis Solutions for Laboratories



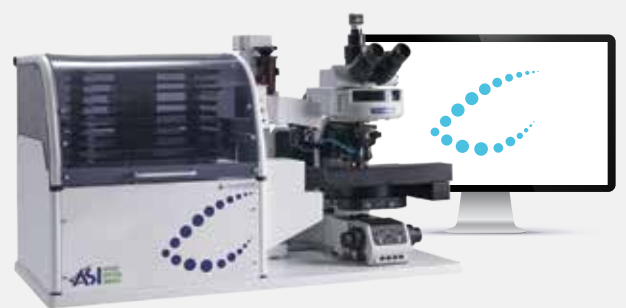
## Diverse platforms to accommodate all laboratory needs



**1-Slide Capture System**



**9-Slide Scanning System**



**99-Slide Tray Loader**



**HyperSpectral System**



**Review & Analysis Station**



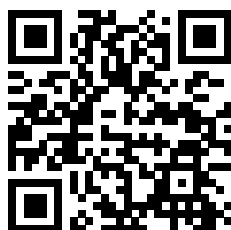
**AnyWhere Remote Connectivity**

# System Specifications



	Manual 1 Slide	9 Slide Motorized Stage	99 Slide Tray Loader
Microscope Support	BF upright microscopes	OLYMPUS BX61 BF OLYMPUS BX63 BF ZEISS Axiomager Z2 BF	OLYMPUS BX61 BF OLYMPUS BX63 BF ZEISS Axiomager Z2 BF
Objectives	10x/0.3 NA 100x/1.3 NA	1.25x/0.04 NA (Optional) 10x/0.3 NA 100x/1.3 NA	1.25x/0.04 NA (Optional) 10x/0.3 NA 100x/1.3 NA
Camera	5MP CMOS Monochrome	5MP CMOS Monochrome	5MP CMOS Monochrome
Slide Capacity	1 slide (Manual or Motorized)	9 slides	99+ slides
Barcode Reader	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" x 27.2" x 33.5")	100cm x 90cm x 90cm (39.4" x 35.5" x 35.5")
Weight	According to clients microscope	45kg 99.2lb	80kg 176.4lb

SCAN ME



North America  
Applied Spectral Imaging Inc.  
Tel: +1 760 929 2840  
sales-inc@spectral-imaging.com

Headquarters  
Applied Spectral Imaging Ltd.  
sales@spectral-imaging.com



[www.spectral-imaging.com](http://www.spectral-imaging.com)