

## Harmony

Imaging and Analysis for Cytogenetics







### **Chromosome Analysis and FISH Diagnostics**

Automatic Slide Scanning

Digital Karyotyping and FISH Analysis

View, Manage and Share



"Harmony allows us to view much more cells than we would with a manual microscope, which leads to more accurate and reliable FISH results. Manual FISH analysis is also tedious and leads to technologist fatigue but Harmony never gets tired."



# **Optimized Productivity**

Automated workflows, digital analysis and full integration maximize lab efficiencies



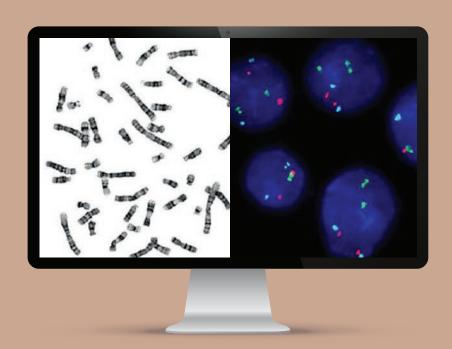
## **Diagnostic Confidence**

Superb image quality, powerful algorithms and feature rich software ensure results accuracy



# Multi Application

A broad sample, staining and probe menu that meets the full range of Cytogenetic demands



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

Nettie Rietema University Medical Center Groningen NI

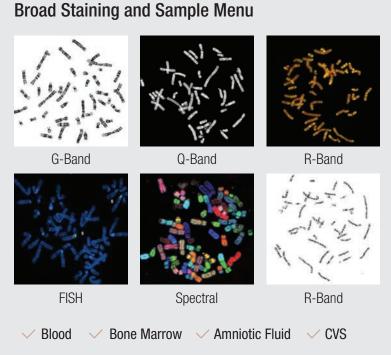
### **Digital Chromosome Analysis**

Efficiency, Precision, Versatility

## Uncompromising Image Quality Start & Walkaway Scanning

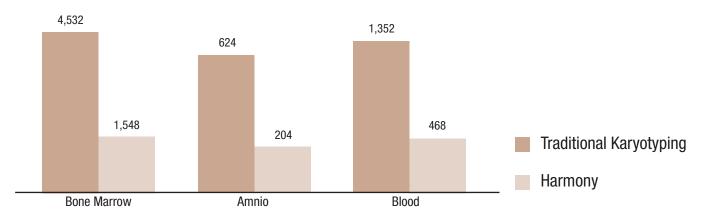


High resolution 4MP camera sensor combined with a high quality 100x immersion oil objective



### **Increased Lab Productivity**

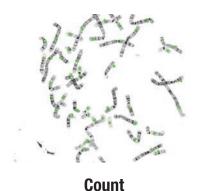
#### 66% Technologist Time Savings (Hours / Month)



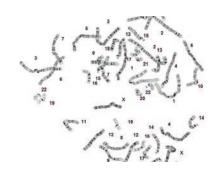
Free technologist time to where their expertise is needed most



### Feature Rich Review & Analysis



Accurate automatic chormosome counting



**Analyze** Fast and easy chromosome indexing and classification



Karyotype Easy separation of chromosomes and advanced image enhancement

Saves hundreds of

### **Easy Separation and Boundary Editing**

"Magic Tool" combining 12 operations in a simple mouse click





Split

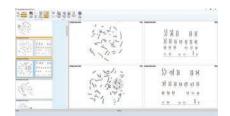


Extend



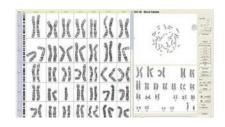
mouse-clicks per karyotype! Combine

### **Advanced Onscreen Supervisor Review**



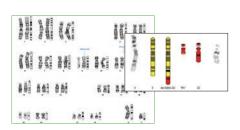
#### **Image Gallery**

Display of all case metaphases and karyotypes



#### **Chromosome Compare**

All captured cells and chromosomes side by side



#### **Aberrant Ideogram**

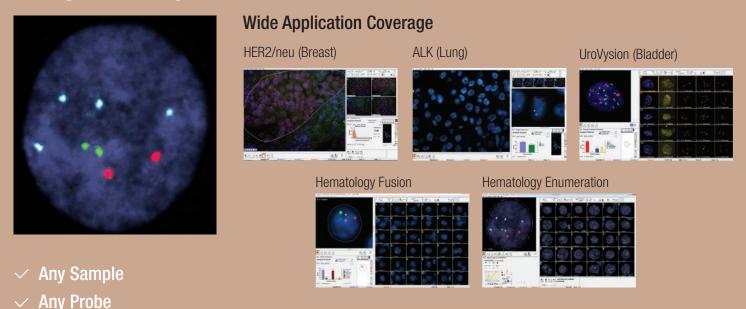
Chromosomes, cells, ideograms and annotations in an image generator

<sup>\*</sup>FDA cleared for 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

### **Digital FISH Diagnostics**

Accuracy, Consistency, Ease-of-Use

### Image Quality Driven to the Max!

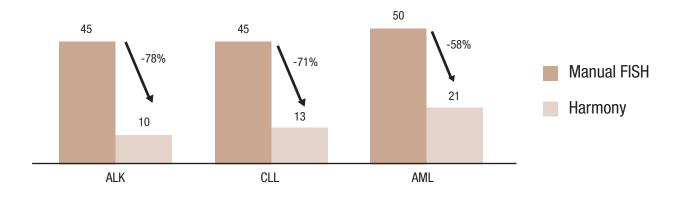


"Digital FISH analysis provides more efficient and accurate results and better patient care in comparison to traditional FISH methods."

Liew M, Rowe L, Clement PW, Miles RR, Salama ME., J Pathol Inform. 2016

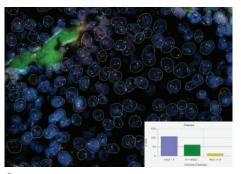
### Workflow Efficiencies for Increasing Test Volumes

Over 55% Time Savings (Minutes / Case)

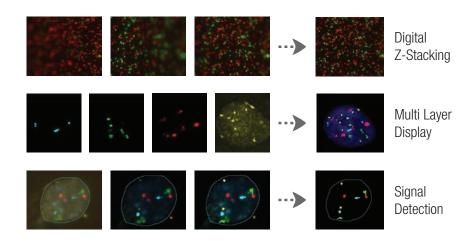




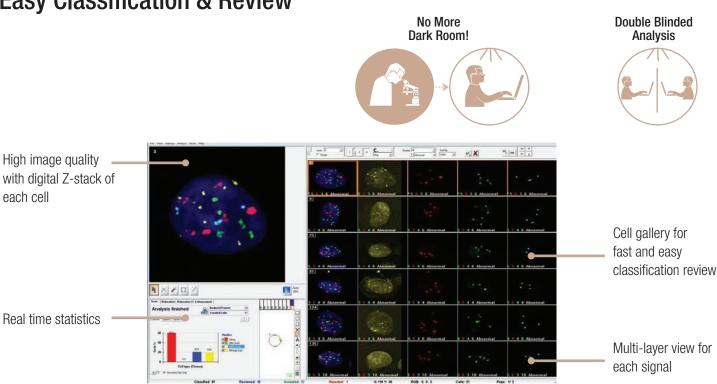
### **Increased Diagnostic Confidence**



**Accuracy**Automated cell/ signal detection and classification for consistent reliable results



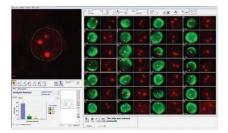
### **Easy Classification & Review**



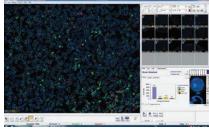
<sup>\*</sup>FDA cleared for FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH, and for HiPath IHC Family for HER2, ER, PR, and Ki67, on the manual configuration

### **Harmony for Research Applications**

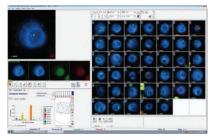
### **FISH Research**



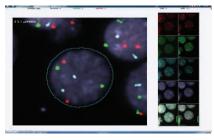
Circulating Tumor Cells



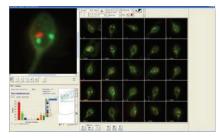
Immuno Fluorescence



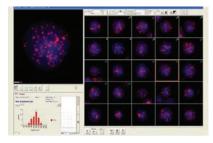
clgFISH



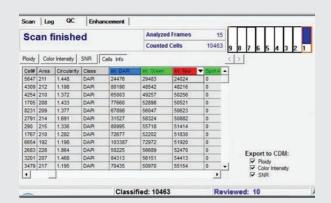
Successive Staining



Sperm Cells



**Telomeres** 



### **Quality Control of Probe Assays**

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

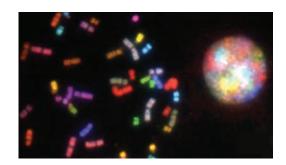
#### **HiSKY**

#### Gold Standard Spectral Karyotyping

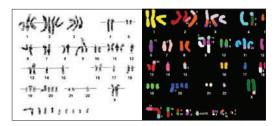
### **Multi-Color FISH Analysis for Result Verification**

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





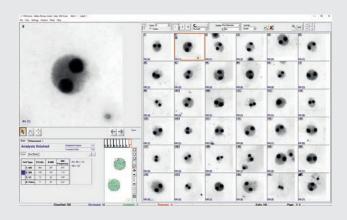






**Brain Tumor** 

Ewing Sarcoma

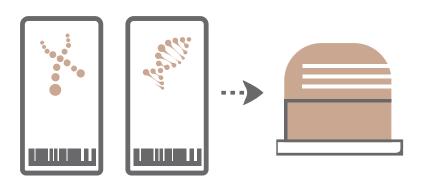


#### **MN Score**

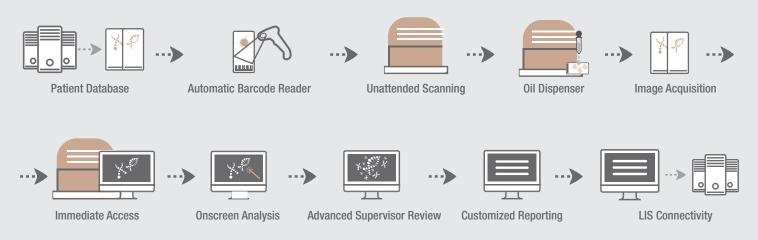
Micronuclei imaging, scoring and analysis for measurement of DNA damage, cytostasis and cytotoxicity

### **Automated Workflows**

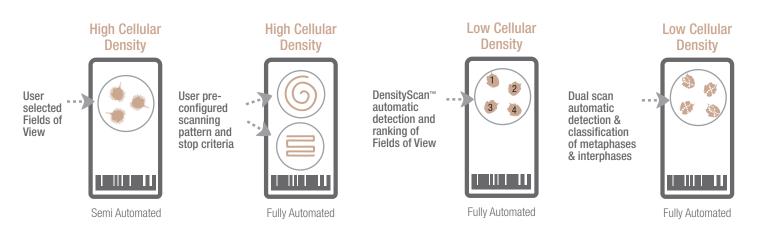
### Karyotyping and FISH in The Same Batch



### **Fully Automated**



### Scanning Protocols for All Probes, Samples and Preparation Techniques



### **Data Management and Connectivity**

Modern Paperless Workflow

### Central Portal and Database Easily Integrates with Lab LIS



Case Data Management (CDM)

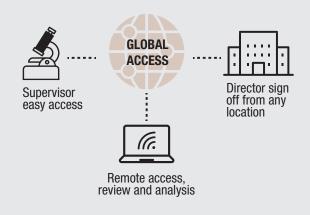
### Efficient

- Comprehensive
- Eliminates human error

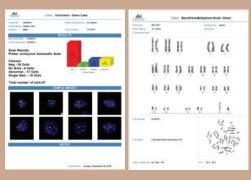
## GenASIs AnyWhere<sup>™</sup> for Remote Access

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** 







		The state of the s		Signal Control of the
	Manual 1 Slide	9 Slide Motorized Stage	99 Slide Tray Loader	HyperSpectral 1 Slide
Microscope Support	BF and FL upright microscopes	OLYMPUS BX61 OLYMPUS BX63 ZEISS Axiolmager Z2	OLYMPUS BX61 OLYMPUS BX63 ZEISS Axiolmager Z2	BF and FL upright microscopes
Objectives	10x0.3 60x/1.42 or 63x/1.25 100x/1.3	1.25x/0.04 (Optional) 10x/1.3 40x/1.3 60x/1.42 or 63x/1.42 100x/1.3	1.25x/0.04 (Optional) 10x/1.3 40x/1.3 60x/1.42 or 63x/1.42 100x/1.3	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 PLUS	1 slide (Manual or Motorized)
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]	20cm x 60cm x 50cm	45cm x 90cm x 85cm	100cm x 90cm x 85cm	28cm x 44cm x 85cm
Weight	8kg	54kg	82kg	20kg

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