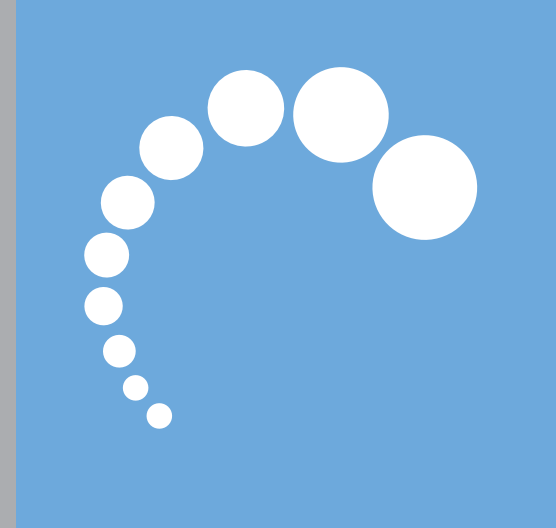




A World  
of Research

# Rainbow

HyperSpectral Imaging and Analysis



POWERED BY  
**GENASIS**

**ASI** APPLIED  
SPECTRAL  
IMAGING

# Molecular and Cellular Image Insight

Advanced hyperspectral imaging and analysis solution for Brightfield and Fluorescence samples



Rainbow reveals the spectrum of every pixel in the image, providing advanced analysis tools to extract quantitative spectral and morphological information on cell biology.





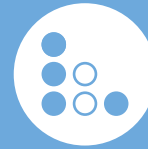
## Differentiate

Uncover chemically similar areas hidden to the eye, create color-coded maps and compare the chemical makeup of components



## Separate

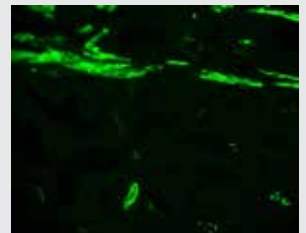
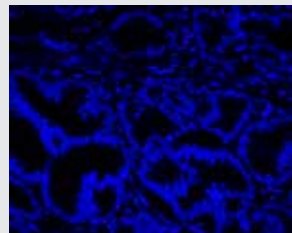
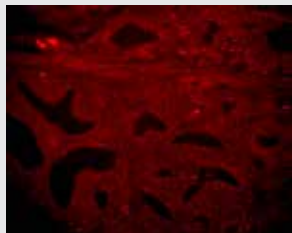
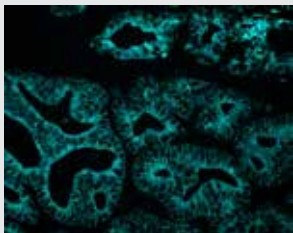
Separate spectral components to view them as individual layers. Detect and classify objects, based on quantitative morphological and spectral content



## Quantify

Un-mix spectral components and remove background and auto-fluorescence for accurate, quantitative expression at every pixel

# See Beyond the Visible



- ✓ Wide spectral range
- ✓ High throughput

- ✓ Non-polarized light
- ✓ Adjustable spectral resolution

- ✓ High spectral resolution
- ✓ Fully Automated

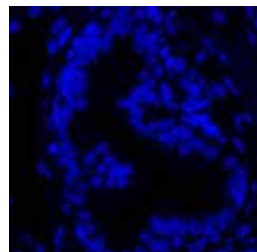
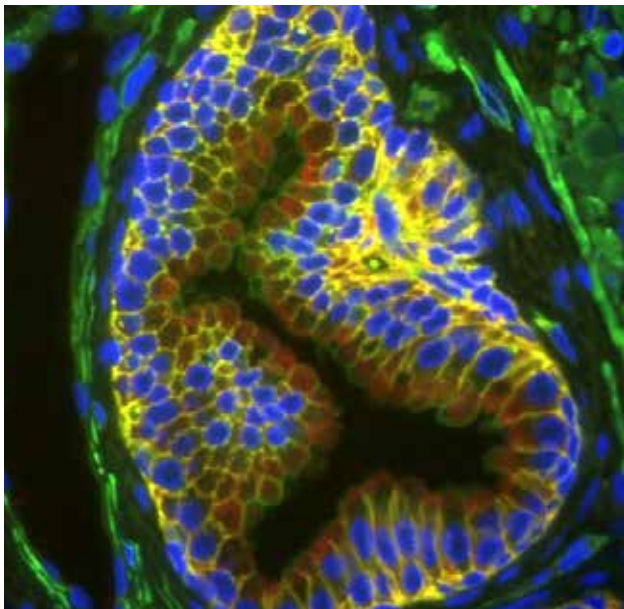
# Identify True Physical and Component Characteristics

## Investigate, Uncover, Classify

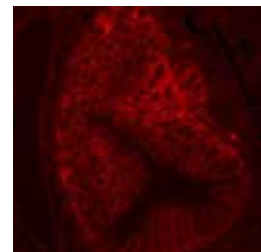
Spectral range twice as wide as the visual range, revealing hidden information

Un-mixing of multiple colors, resolving co-localized image components

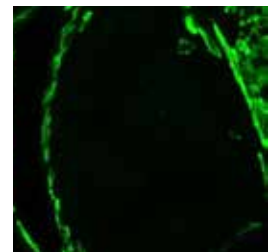
Removal of background signals in Brightfield and auto-fluorescence and enhancement of cluttered signals



DAPI



CY3 - S6/Pcad



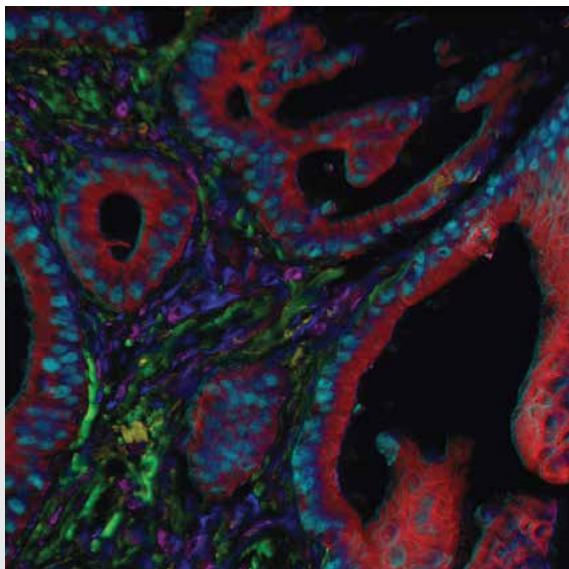
CY2 - SMA



CY5 - NAKATPASE



CY7 - PCK26



● Dye 1: 505

● Dye 2: 554

● Dye 5: 605

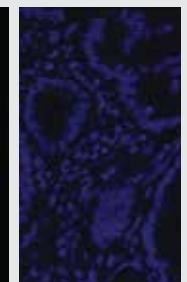
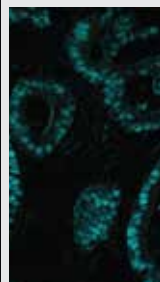
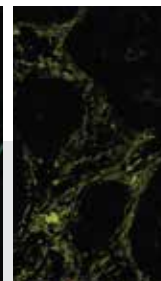
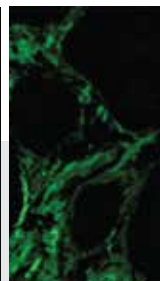
● Dye 6: 624

● Dye 7: 670

● Dye 8: 723

● Dye 9: 775

● DAPI





# Unveil a World of Research for a Wide Range of Applications

✓ Cell Biology

✓ Multicolor IHC

✓ Immunology

✓ Stem Cells

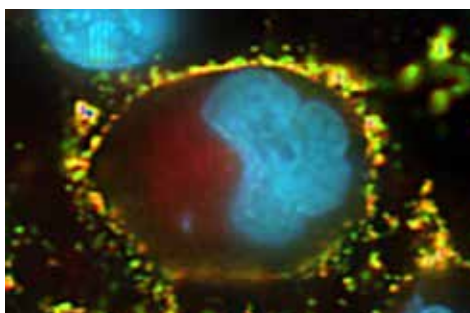
✓ Pharmaceutical

✓ Cell Identification

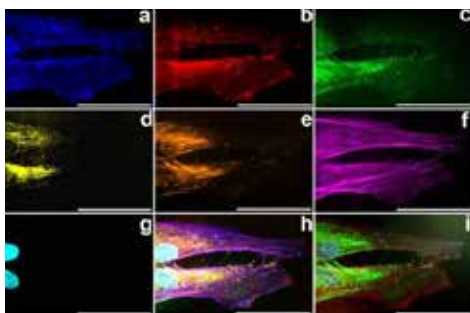
✓ Bacteriology

✓ Infectious Disease

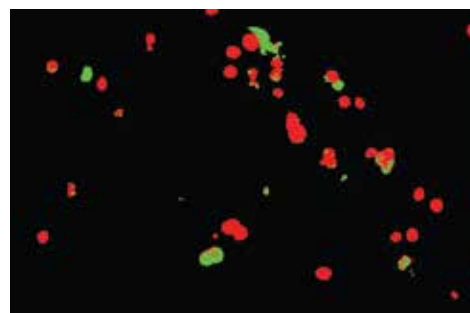
✓ Pathology



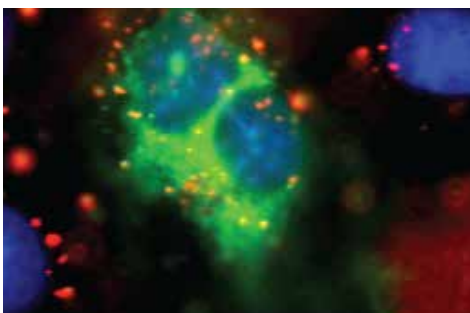
**Drug Delivery**



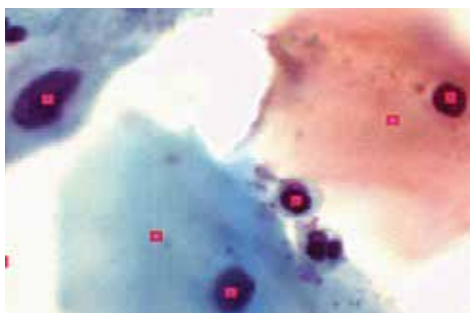
**Stem Cell**



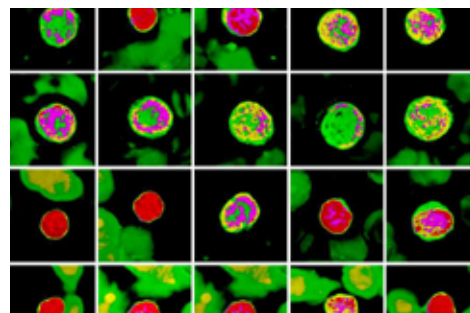
**Apoptosis**



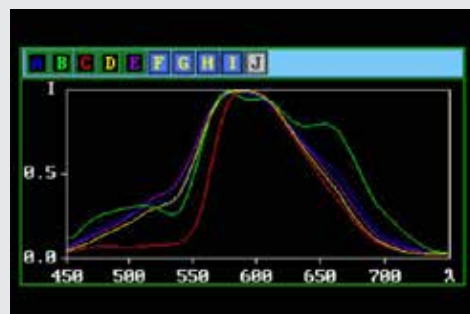
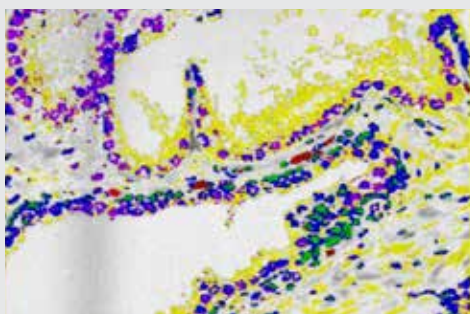
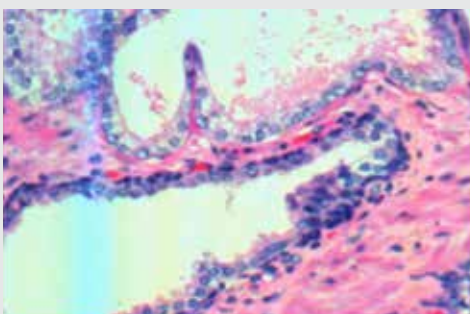
**Liposome**



**PAP Smear**



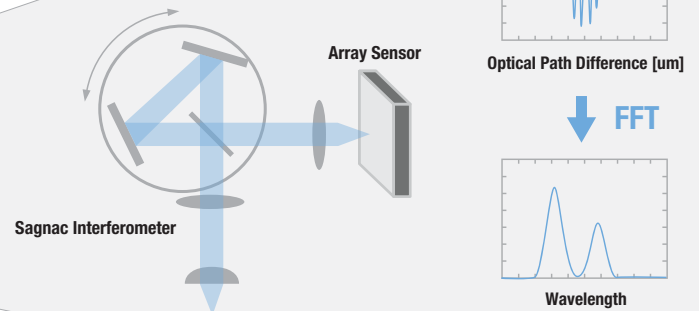
**CLL - Hematology**



**Objective Cell Identification – Prostate P.I.N.**

# Interferometer-Based Electro-Optical Hyperspectral Solution

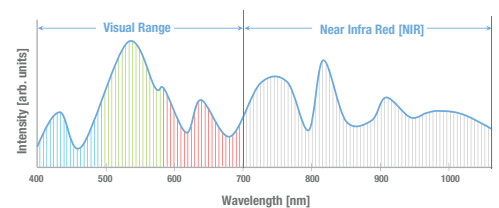
A cutting edge dual-mode optical system, allowing both interferometer-based image capture for 3D hyperspectral imaging and direct view mode for high resolution 2D image capture.



Simultaneous measurement of spectra at each and every point

## See Beyond the Visible

All information in a single scan



Microscope Support  
Upright and inverted  
microscopes

Illumination Models  
Brightfield, Fluorescence  
and Reflectance

Spectral Range  
400-1000 nm

Data per Pixel  
16 bit

User Defined Spectral  
Resolution [FWHM]  
3-40 nm

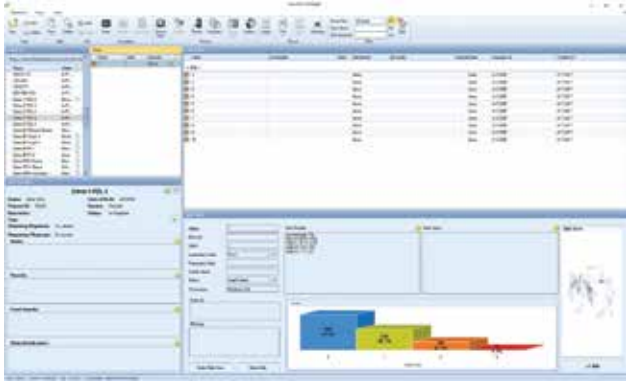
Dual Mode  
• Hyperspectral capture  
• Monochromatic imaging

Spatial Resolution  
1.3MP (pixel size depends on  
microscope objective lens)

# Data Management and Connectivity

Modern Paperless Workflow

## Central Portal and Database for Clinical and Research Use



Case Data Management (CDM)

- ✓ Efficient
- ✓ Comprehensive
- ✓ Eliminates human error

## GenASIs AnyWhere™ for Remote Access

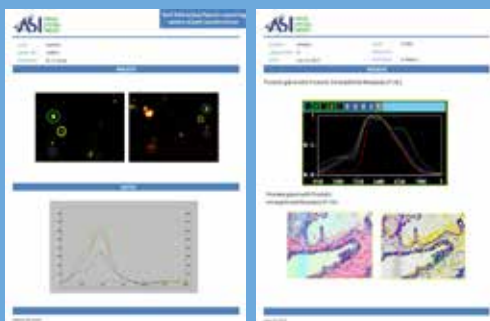
Lab Connectivity Anytime, Anywhere

Review and analyze from any location via a secured network

Remote access, review and analysis



### Advanced Reporting



### 1D/2D Barcode Reader



### LIMS Connectivity

- ✓ Performance
- ✓ Security
- ✓ Data Integrity

HIPAA Compliant



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