Every Diagnosis Counts

CytoPower
Imaging and Analysis for Cytogenetic Samples
A Complete Cytogenetics Workflow

Digitize slides, analyze chromosomes and score probes all-in-one

Welcome to your comprehensive Cytogenetics testing solution:

Scan & Capture
- Digitize your slides for onscreen analysis and case management.
- Capture both metaphase and interphase cells for analysis.

View & Analyze
- All in one platform to analyze chromosomes and classify cells.

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

Report
- Submit comprehensive case details.

Scan ➔ Analyze ➔ Review ➔ Report ➔ Complete!
Digital Karyotyping & FISH Analysis

Manual and Automated Scanning
An all-in-one imaging & analysis solution for digital 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.

Fully Automated

Benefits to your lab:
- **Higher diagnostic confidence** with more cell analysis
- Automatic metaphase and interphase finder for **better results**
- **Validated analysis tools** for standardization across users
- **Data management** for performance metrics
- And so much more

Cytogenetic Clinical Applications to visualize, assess and identify:
- Chromosomal Abnormalities
- Structural and Numerical Changes
- Prenatal Amniotic Fluid
- Postnatal Blood
- Bone Marrow Cancer Genetics
- And much more…

Hematology Fish Flow:
Digital Chromosome Analysis You Can Rely On

Efficiency, Precision, Versatility

State of the Art Image Quality
Start & Walkaway Scanning

Broad Staining and Sample Menu

- G-Band
- Q-Band
- R-Band
- FISH
- Spectral
- R-Band

G-Band
Q-Band
R-Band

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

Increased Lab Productivity

66% Technologist Time Savings (Hours / Month)

- Bone Marrow: 4,532 → 1,352 (65%)
- Amnio: 624 → 204 (68%)
- Blood: 1,548 → 468 (65%)

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

- 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

* FDA cleared for BandView, FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH
Digital FISH Analysis

Accuracy, Consistency, Ease-of-Use

Image Quality Driven to the Max!

Wide Application Coverage
- HER2/neu (Breast)
- ALK (Lung)
- UroVysion (Bladder)

Hematology Fusion
Hematology Enumeration

Workflow Efficiencies for Increasing Test Volumes

Over 55% Time Savings (Minutes / Case)

<table>
<thead>
<tr>
<th></th>
<th>Manual FISH</th>
<th>CytoPower</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALK</td>
<td>45</td>
<td>10</td>
</tr>
<tr>
<td>CLL</td>
<td>45</td>
<td>13</td>
</tr>
<tr>
<td>AML</td>
<td>50</td>
<td>21</td>
</tr>
</tbody>
</table>

* FDA cleared for BandView, FISHView, SpotScan for CEP XY, UroVysion, ALK and HER2/neu FISH

Increased Diagnostic Confidence

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

Digital Z-Stacking
Multi Layer Display
Signal Detection

In-depth Cell Analysis

Easy Classification & Review

No More Dark Room!

High image quality with digital Z-stack of each cell

Cell gallery for fast and easy classification review

Double Blinded Analysis

Manual FISH

CytoPower

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 RN, Salama ME., J Pathol Inform.
Quality Control of Probe Assays

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

*HiSKY for Test Assurance

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

Scanning Protocols for All Probes, Samples and Preparation Techniques

Semi Automated
- High Cellular Density
- User pre-configured scanning pattern and stop criteria

Fully Automated
- Low Cellular Density
- DensityScan™ automatic detection and ranking of Fields of View
- Dual scan automatic detection & classification of metaphases & interphases

HiSKY Probe Kit
- Chromosome paints for human, mouse and rat

*HiSKYFISH Research

Gold Standard Spectral Karyotyping

MN Score
- Micronuclei imaging, scoring and analysis for measurement of DNA damage, cytostasis and cytotoxicity
Data Management and Connectivity

Modern Paperless Workflow

Central Portal and Database
Easily Integrates with Lab LIS

Efficient
Comprehensive
Eliminates human error

Work from Home!

GenASis AnyWhere™ for Remote Access

Lab Connectivity Anytime, Anywhere
Review, analyze and sign off case information from any location via a secured network

Become a Data-Driven Lab with LabLife

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

Advanced Reporting

1D/2D Barcode Reader

LIS Connectivity
✓ Performance
✓ Security
✓ Data Integrity
HIPAA Compliant

Click for Atlas
Reference Atlas for higher assurance

Atlas provides the expert support you need to investigate, research, and confirm challenging abnormalities.

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

http://atlasgeneticsoncology.org/
About Applied Spectral Imaging

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 50 countries. With a wide FDA clearance portfolio, you can rest assured that ASI applications have been rigorously tested for compliance and clinical use.

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.

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

Global Presence

3,500
Systems installed worldwide

54
Countries through direct & indirect sales forces

63
Third party distribution partners

The Company’s Product Portfolio

Exceptional Imaging & Analysis Solutions for Laboratories

Cytogenetics

Pathology

Research

HiBand
HiFISH
CytoPower
HiPath Pro
PathFusion
Rainbow

Diverse platforms to accommodate all laboratory needs
## System Specifications

<table>
<thead>
<tr>
<th>Manual 1 Slide</th>
<th>9 Slide Motorized Stage</th>
<th>99 Slide Tray Loader</th>
<th>HyperSpectral 1 Slide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microscope Support</strong></td>
<td>BF and FL upright microscopes</td>
<td>OLYMPUS BX61 BF + FL OLYMPUS BX63 BF+ FL ZEISS AxioImager Z2 BF+ FL</td>
<td>OLYMPUS BX61 BF + FL OLYMPUS BX63 BF+ FL ZEISS AxioImager Z2 BF+ FL</td>
</tr>
<tr>
<td><strong>Objectives</strong></td>
<td>Olympus 10x/0.3NA 60x/1.25NA 100x/1.3NA</td>
<td>Olympus 1.25x/0.04NA 4x/0.16NA 10x/0.3NA 40x/1.4NA 60x/1.25NA 100x/1.3NA</td>
<td>ZEISS 1.25x/0.03NA 5x/0.16NA 10x/0.3NA 40x/1.3NA 63x/1.25NA 100x/1.3NA</td>
</tr>
<tr>
<td><strong>Camera</strong></td>
<td>5MP CMOS Monochrome</td>
<td>5MP CMOS Monochrome</td>
<td>5MP CMOS Monochrome</td>
</tr>
<tr>
<td><strong>Slide Capacity</strong></td>
<td>1 slide (Manual or Motorized)</td>
<td>9 slides</td>
<td>99+ slides</td>
</tr>
<tr>
<td><strong>Barcode Reader</strong></td>
<td>Handheld 1D/2D</td>
<td>Handheld 1D/2D</td>
<td>Integrated 1D/2D</td>
</tr>
<tr>
<td><strong>Automated Oil Dispenser</strong></td>
<td>N/A</td>
<td>Optional</td>
<td>Integrated</td>
</tr>
<tr>
<td><strong>Dimensions [WxDxH]</strong></td>
<td>According to clients microscope 61cm x 69cm x 85cm (24” x 27.2” x 33.5”)</td>
<td>100cm x 90cm x 90cm (39.4” x 35.5” x 35.5”)</td>
<td>According to clients microscope</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>45kg 99.2lb</td>
<td>80kg 176.4lb</td>
<td>According to clients microscope</td>
</tr>
</tbody>
</table>