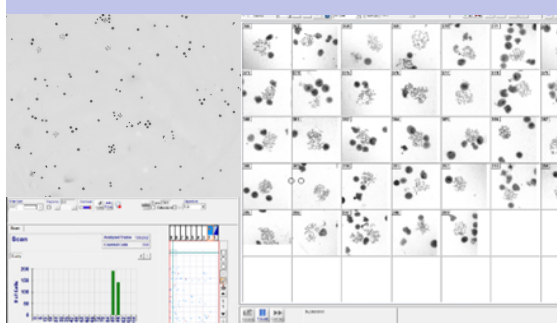


HiBand Karyotyping now **Powered by AI**

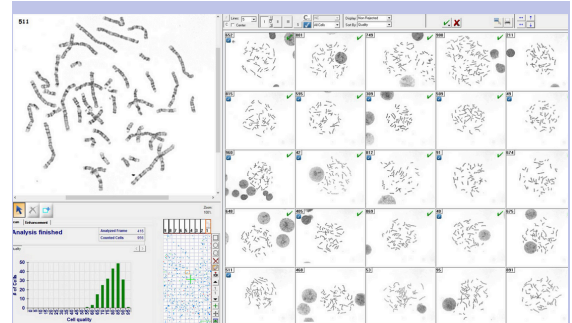


10X Scan



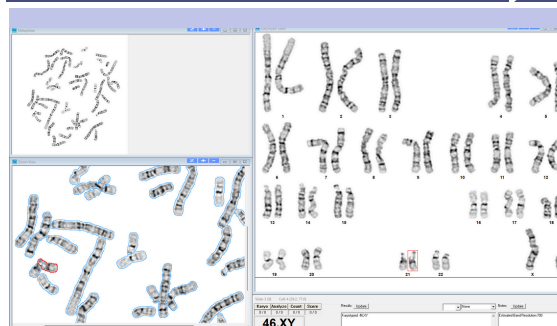
Automatic metaphase search and mitotic index calculation at 10X

100X Capture



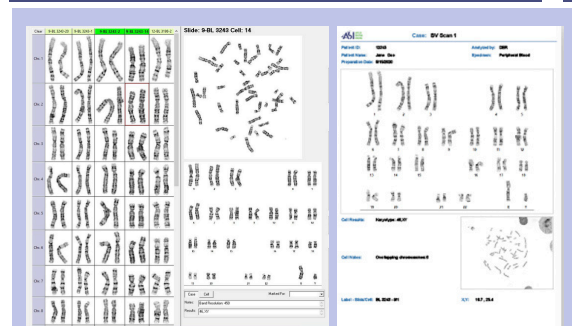
Metaphase scanning at 100X with option to sort karyotypes by quality

Review & Analysis



AI-powered automatic chromosome segmentation and placement in the karyotype table

Report & Sign Out



Advanced Director on-screen case review with Chromosome compare and customized Report templates

Please contact ASI
sales@spectral-imaging.com | sales-inc@spectral-imaging.com

HiBand Karyotyping now **Powered by AI**

HiBand offers a digital solution for cytogenetic laboratories, combining automatic high-throughput scanning with AI-based chromosome segmentation and karyotyping. Supporting karyotype review and approval while scanning, HiBand provides advanced functional tools for image analysis across a variety of banding patterns including G-Band, Q-Band and R-Band.

Automated workflow powered by AI

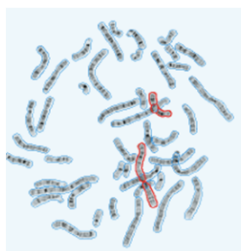
ASI's automated karyotyping workflow performs chromosome detection, segmentation and classification requiring minimal manual adjustments¹. Karyotyping is applicable to all sample types, and can be used both with manual and scanning platforms. Karyotyped metaphases, with optional automatic sorting based on chromosome quality, are available for review and approval while scanning.

Benefits to your lab

- ◆ Segmentation of touching and overlapping chromosomes requiring minimal manual adjustments
- ◆ AI-powered chromosome classification in seconds
- ◆ Image gallery displaying all metaphases and suggested karyotypes
- ◆ Chromosome Compare application to review cells and chromosomes side by side
- ◆ Integrated with laboratory information system (LIS)

High accuracy in chromosome segmentation and placement¹

Peripheral Blood

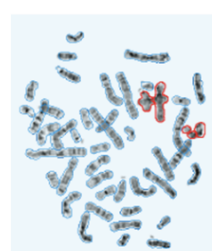


95% correctly segmented

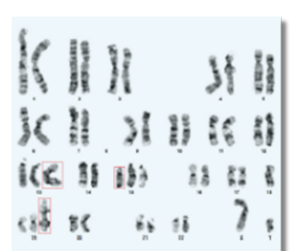


100% correctly placed*

Bone Marrow



90% correctly segmented



96% correctly placed*

Please contact ASI
sales@spectral-imaging.com | sales-inc@spectral-imaging.com

DOC000509
Rev. B

¹ Taghiyev et al, New artificial intelligence-based computer-aided chromosome analysis and karyotyping, ACMG 2024, P671

* Following manual adjustments to correct automatic segmentation. Results based on the analysis of 20 bone marrow and 20 peripheral blood metaphases with an average of more than 10 overlaps, crossings or touching chromosomes per metaphase. Segmentation and classification errors are highlighted in red.