

The Pathology Company

Leica
BIOSYSTEMS



CytoVision
Efficiency without compromising quality

Seeing is believing. Trial CytoVision in your lab.

CytoVision
Efficiency without compromising quality

Quality you can capture

Chromosome imaging designed and manufactured by a single provider.

Confidence you can trust

Patients deserve the highest diagnostic confidence in the shortest time. CytoVision delivers an integrated Cytogenetics imaging platform. The market leading platform, used in over 3000 laboratories worldwide, CytoVision provides the convenience of on-screen analysis with flexibility in hardware and software deployment.

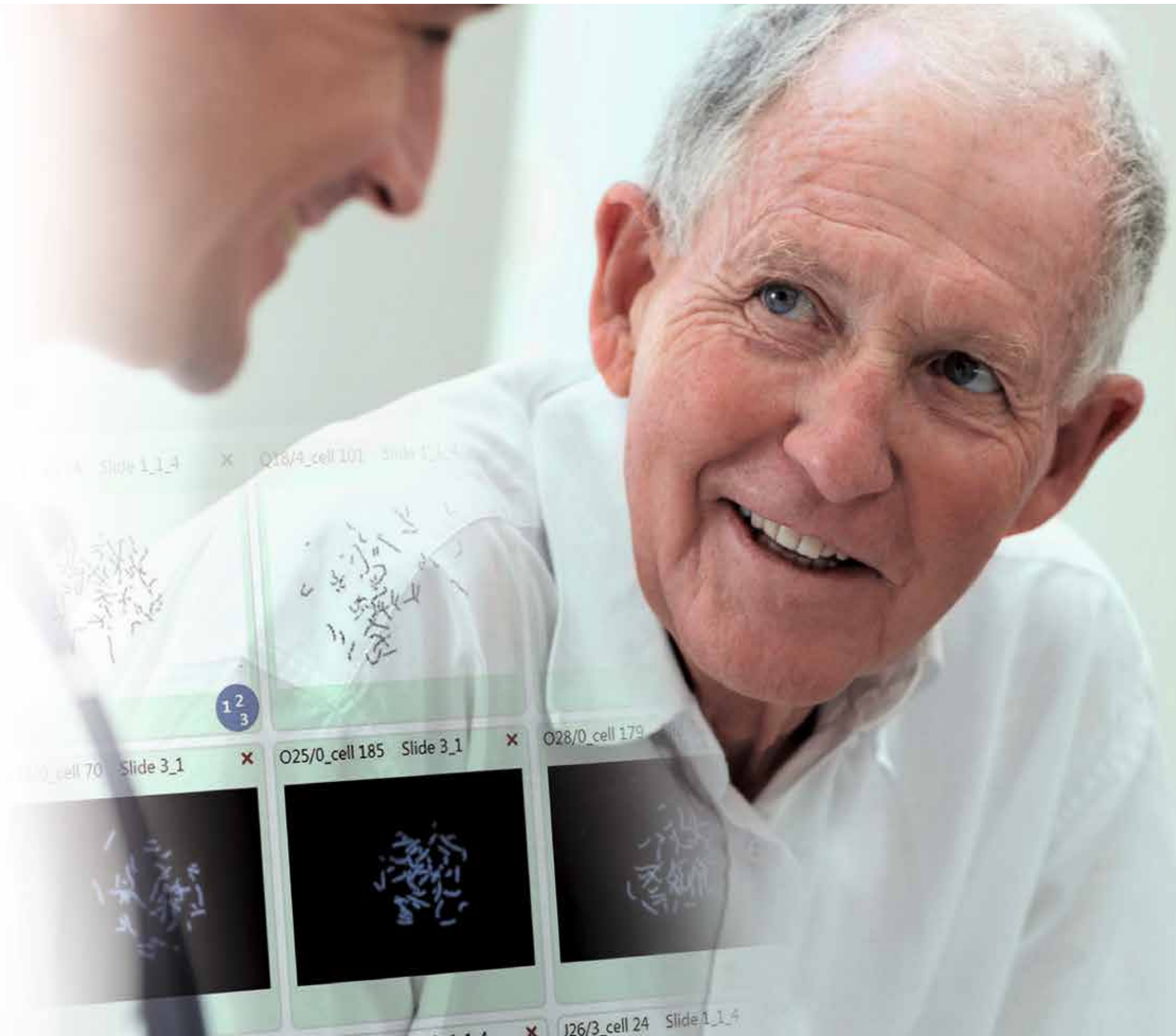
Driving workflow efficiency

CytoVision gives you imaging applications all in one product, and all content in one case, achieving enhanced productivity through more efficient workflow management. Simplicity of use, combined with clear process steps help ensure rapid deployment into full laboratory operation.

Designed, built and maintained by Leica Biosystems

At Leica Biosystems, we bring a unique combination of optical expertise and robotics to save you time and reduce costs through the automation of time consuming process steps.

From sample to answer, we leave you to concentrate on the important patient results. Rely on our global service organization to keep your mission critical systems online.



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Save time and space

The Cytovision GSL family combines high throughput, 24/7 scanning with space-saving footprint. Slide prioritization allows critical patient cases to be fast-tracked without impacting on workflow.

Improved productivity

Working with CytoVision has made a significant difference to productivity levels in laboratories around the world. The South West Thames Regional Genetics Service, part of the St. George's Healthcare NHS trust in the UK, had a routine backlog for nearly 4 years, due to staff shortages. Within 30 days, the CytoVision GSL120 had been fully integrated into the in-house LIS, and staff were fully trained. Within 4 months, the backlog was reduced from 570 cases to 70 cases.

Grows with your needs

From a standalone station for capture and analysis, to a complex scanner and review station workflow, Cytovision offers the flexibility and scalability your lab needs as you grow case volumes.

With or Without Microscopes

For laboratories seeking microscopes, we integrate Leica microscopes for a high quality optical experience available today. For laboratories with existing microscopes, our capture stations are compatible with all leading brands.

“We are delighted with the installation of and support provided for our CytoVision GSL 120 network. Within 4 weeks of training, our Bloods reporting time was halved, which resulted in a tangible improvement in staff morale.”

Tony Herbert, PhD, Dip. R.C.Path, Assistant Director, Wessex Regional Genetics Laboratory, UK



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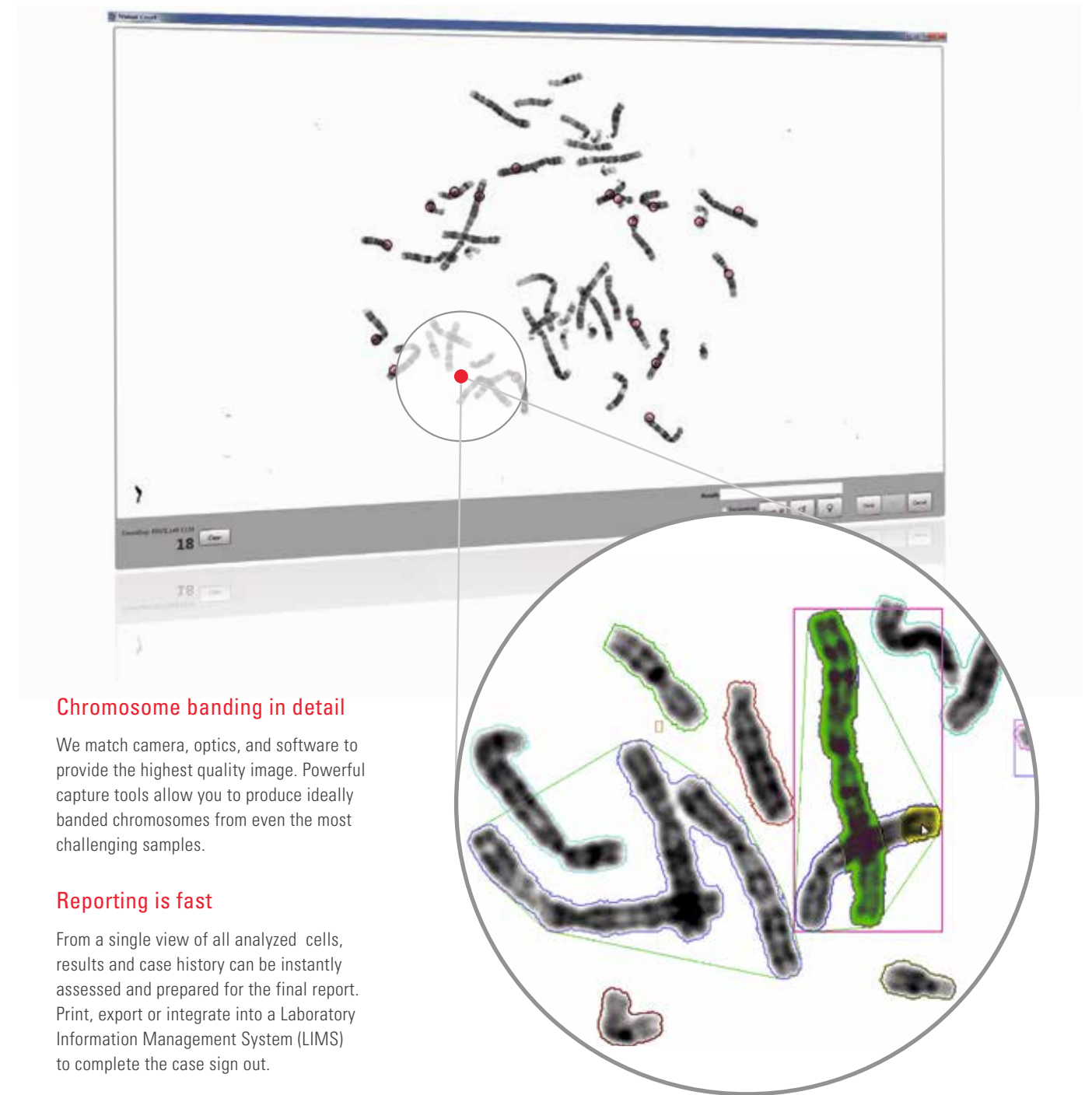
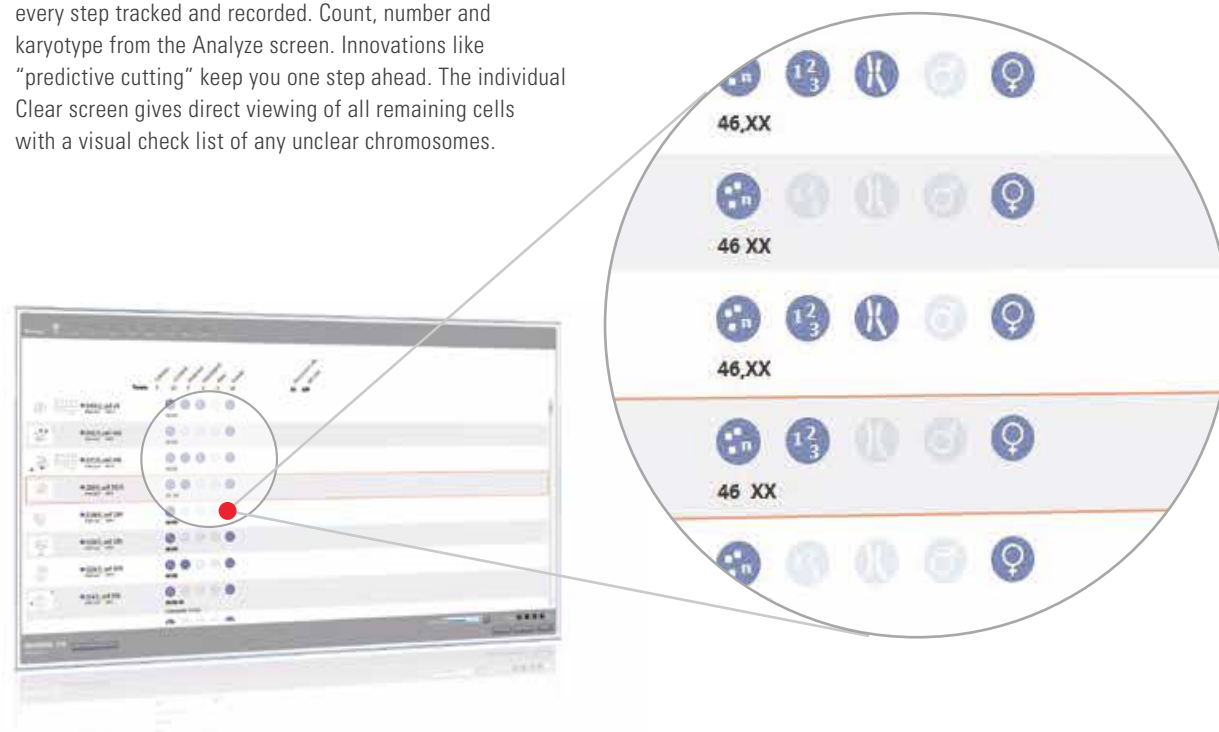
CytoVision
Efficiency without compromising quality

Keeping you one step ahead

CytoVision sets the standards for on-screen analysis by closely following established laboratory workflows. Precise and intuitive tools minimize the steps involved in chromosome separation, making CytoVision one of the most efficient Karyotypers available today.

Clear and simple steps to make chromosome analysis fast and effective

A simple clean interface leads you through the analysis, every step tracked and recorded. Count, number and karyotype from the Analyze screen. Innovations like “predictive cutting” keep you one step ahead. The individual Clear screen gives direct viewing of all remaining cells with a visual check list of any unclear chromosomes.



Chromosome banding in detail

We match camera, optics, and software to provide the highest quality image. Powerful capture tools allow you to produce ideally banded chromosomes from even the most challenging samples.

Reporting is fast

From a single view of all analyzed cells, results and case history can be instantly assessed and prepared for the final report. Print, export or integrate into a Laboratory Information Management System (LIMS) to complete the case sign out.

“The GSL-120 increases efficiency while not compromising on quality. Staff initially refused to leave the microscope. Now, staff refuse to manually scan slides!”

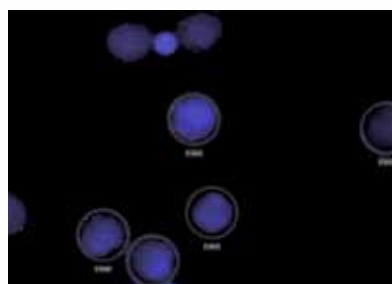
Dr Leena Gole, Cytogeneticist, National University Health System, Singapore

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CytoVision
Efficiency without compromising quality

Power at your fingertips

Bring FISH analysis to where you want it, on the screen with all the analysis tools you need at your fingertips. It takes only a few minutes to configure and deploy a new FISH capture and analysis protocol on CytoVision, making it a simple, but powerful FISH imaging system.



Images for analysis

Automatically apply image processing to produce a truly stunning fluorescent image, then choose the best cell selection method for enumeration, amplification, fusion or breakapart probes. Drop pre-defined scores on cells, or count signals automatically with or without automatic cell segmentation.



Review with confidence and in comfort

The dynamic analysis gallery displays statistics, images and overlays for fast, accurate review of every analyzed cell. Produce results faster than standard darkroom work. Dual "blind" scoring allows for two independent scores to be produced and then combined, facilitating laboratory standard practice.



FISH reports that tell the whole story

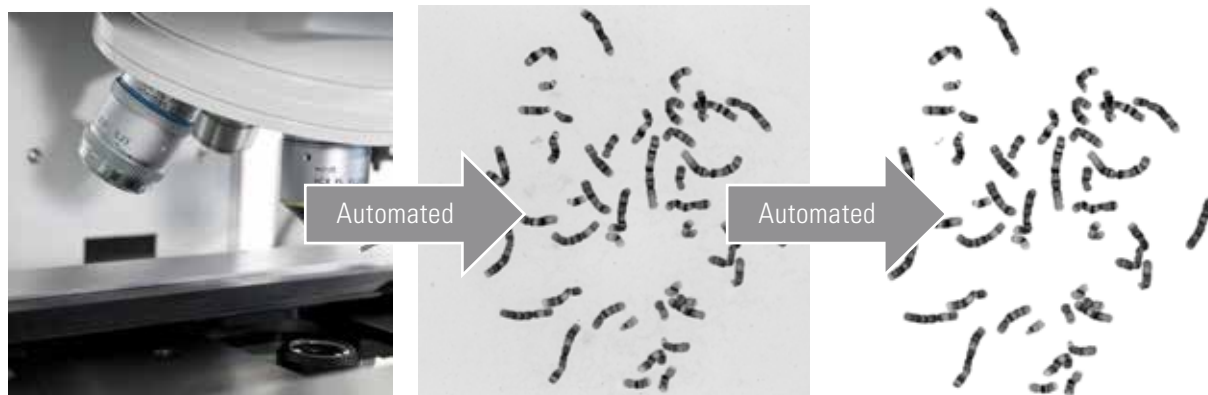
Effectively communicate results from the FISH lab to connect all stakeholders in the process of molecular testing. Clear concise FISH reports with illustrative images and data, bring testing out of the dark and build confidence in the diagnostic procedure.



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Delivering true automation through efficiency

True automation means creating a process in your laboratory that increases productivity by decreasing sample turnaround time and freeing up valuable staff time. CytoVision delivers because it's been developed through close collaborations with real customers who share our vision of efficiency.



An Automated and effective transition - from scanning to screen

CytoVision takes the high resolution image of the cells and automatically detects any stray chromosomes including them in the capture. Pre-set user defined chromosome enhancements are then applied in the background so image ready cells are immediately available in the case gallery ready for analysis.

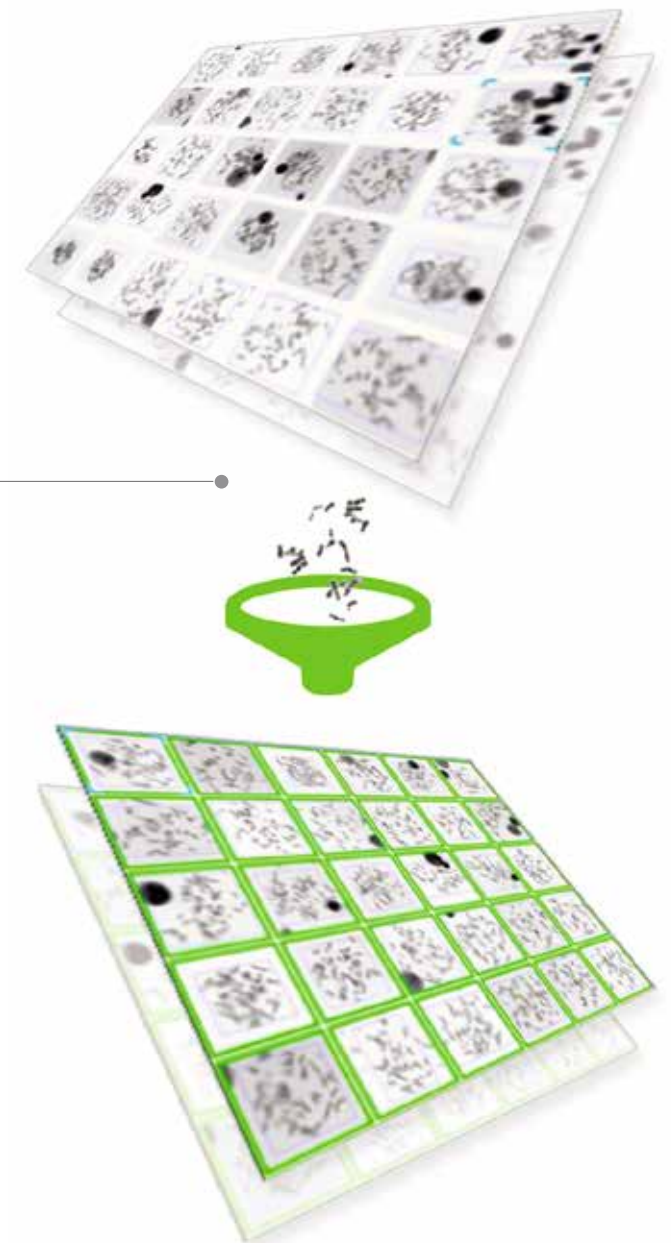
Metaphases from the full slide scan are first documented in the review grid.

The unique CytoVision classifier provides a simple, intuitive filter to sort the captured cells according to your requirements.

The resulting metaphases are presented in a precise sequence depending on how closely they resemble your target cells.

Metaphase finding

Identifying all of the best cells all of the time, the standout capability of the GSL scanner, is its ability to be trained to find the cells you want, in little time with minimal interaction. Controlled through the 'classifier', the intuitive visual comparative method is used to identify cells of choice. Simply "show" the system the cells you want and the unique classifier will do the rest.



"Within 30 days, St. Georges Hospital had a fully automated workflow from scan to report for blood and prenatal samples. Reporting times dropped from 116 days to 28 days."

Data courtesy of Victoria J. Anthony-Dubernet, Clinical Cytogeneticist, St. Georges Hosp, London

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Complete fluorescent automation drives consistency

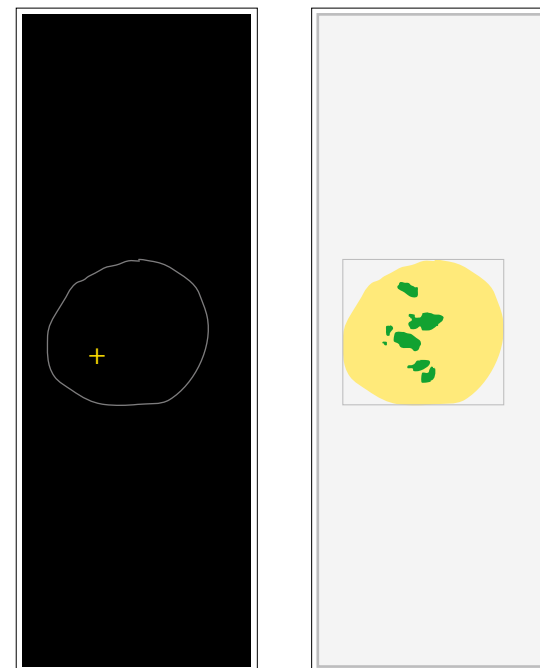
Working together for a brighter, clearer result

Preparation of a FISH sample for automated capture and assisted scoring requires a different level of process control to a manual read. The ideal protocol minimizes processing artifacts and optimizes key sample characteristics for automation, like sample density and counterstain intensity.

The benefits of FISH automation are clearly demonstrable. The ability to analyze slides out of the dark room, more ergonomic conditions, along with simplified training, go hand-in-hand with consistency and efficiency.

Scan only where required

Cellular or tissue FISH slides can be pre-scanned with optional slide etching detection to guide high resolution capture. Target cell morphology can be carefully controlled by the use of size and shape to select the best cells for counting.

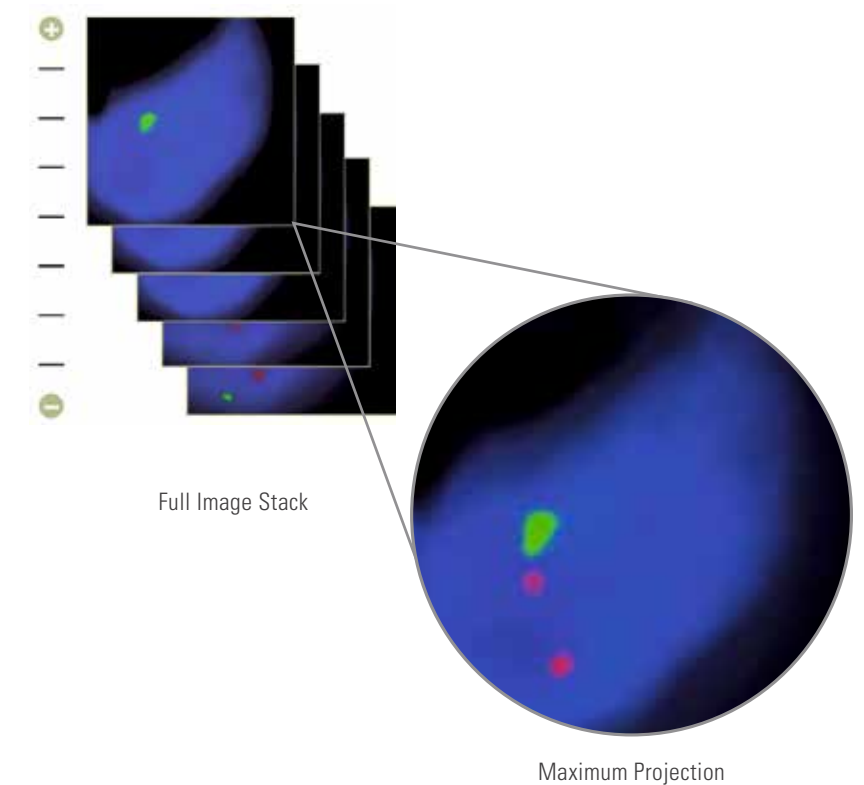


60x AutoCap 4colour

Capturing the right cells in the right way

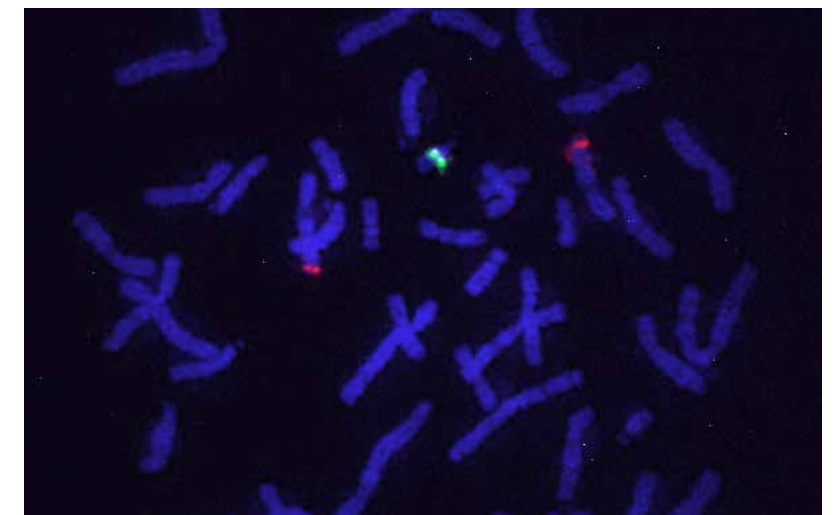
Either from the prioritized list of required cells, or a marked tissue area, superb multi-plane, multi-channel images are captured and either scored automatically to be reviewed later, or set for manual scoring and review.

Allowing the system to scan and capture really does mean a more efficient process allowing you to concentrate on the results.



Scanning to confirm

Automated FISH capture can play an important role in validating new probes or even a new LOT#. It can also be used to find metaphases and speed confirmation of array data.



“Training new staff on interphase FISH scoring is made so much easier when you are able to show examples of nuclei and their signal patterns on the screen rather than trying to locate the same cell down a microscope.”

Lisa Russell PhD, Leukaemia Research Cytogenetics Group, Northern Institute for Cancer Research, Newcastle, UK

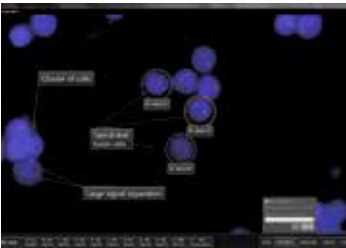
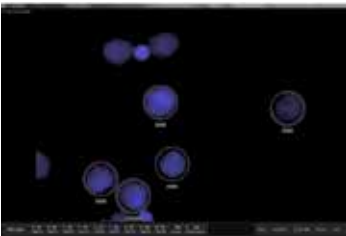
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Kreatech FISH Probes

Next Generation FISH

Kreatech FISH Probes are a major advancement in DNA in situ hybridization. The probes are constructed using the REPEAT-FREE technology that is based on subtractive hybridization, which specifically removes all repetitive elements from the probe that are dispersed throughout the target area of interest. Eliminating these repeat sequences leads to more specific binding kinetics and makes the need for blocking DNA obsolete. This results in brighter signals and reduced background noise.

Through collaborations with leading institutions world-wide, we are continuously expanding our Kreatech FISH Probe range of more than 400 products.



Kreatech FISH probes

- All products CE marked in Europe
- Largest portfolio
- Ready to use formats
- Semi automation with Thermobrite Elite

Assay Features

- Optimal kinetics
- No blocking DNA

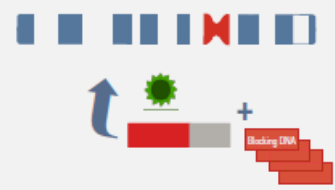
Customer Benefits

- Improved signal to background ratio
- Can reduce repeat rate

Filter Set

DAPI, Green, Orange, Texas RED, Dual; Green/Orange, Green/Texas RED, Aqua

Conventional FISH Technology



Kreatech FISH Probe REPEAT-FREE Technology



Features

- Bright colors
- Reduced background
- Ready-to-use

Benefits

- Eases interpretation of results
- Simplifies workflow

CytoLink, a gateway to connectivity

As a standalone Cytogenetic imaging workstation or network CytoVision is a leader. CytoLink is your passport to integration and a new level of efficiency and collaboration.



No more manual data entry

Pull data from your LIS directly into CytoVision for simple complete report generation. Push the report back to the LIS for complete integration.

Be driven by barcodes

Removing slide entry from your workflow means scanning and case assignment can be done directly from the barcode.



Allow remote access

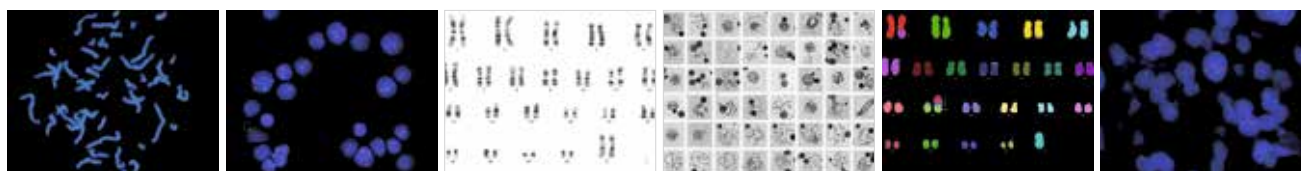
Whether it's the freedom to work from home, or the ability to share and discuss cases over the internet in a secure and safe environment there are many advantages to exploring new methods. While metaphases are being found, there is always someone who could be remotely working on the cases.

Go paperless

By integrating CytoVision into the laboratory workflow, every aspect of documentation can be captured. Forms can be created digitally and kept within the software ready for final integration with the LIS.



Automated Leica Objectives



LEICA BIOSYSTEMS

Leica Biosystems is a global leader in workflow solutions and automation, striving to advance cancer diagnostics to improve patients' lives. Leica Biosystems provides anatomic pathology laboratories and researchers a comprehensive product range for each step in the pathology process, from sample preparation and staining to imaging and reporting. Leica Biosystems easy-to-use and consistently reliable offerings help improve workflow efficiency and diagnostic confidence. The company is represented in over 100 countries and is headquartered in Nussloch, Germany.

Certain products are FDA-cleared or CE IVD marked and labeled for specific applications.

For specific product indications and more information go to LeicaBiosystems.com

Leica Biosystems – an international company with a strong network of worldwide customer services.

For detailed contact information on your nearest sales office or distributor please visit our website: LeicaBiosystems.com