



TissueGnostics **HemoFAXS** Hematology Analysis System

HemoFAXS

Hematology Analysis System

Ease up your lab life

Microscope-based fully automated leukocytes acquisition and classification system

HemoFAXS® provides fully automated acquisition and classification of leukocyte subtypes.

Based on the application of the latest **Support-Vector-Machine-Technology** a especially developed algorithms enable prompt location and classification of leucocytes.

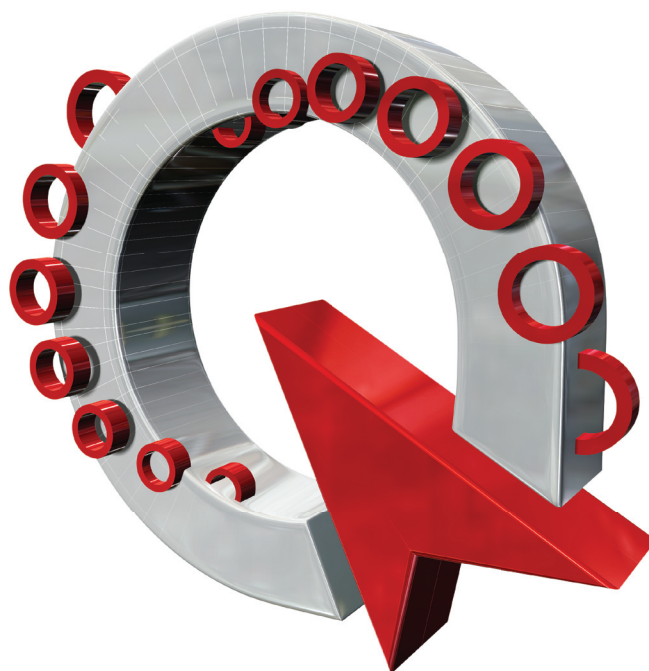
Images and results are archived on basis of intelligent segmentation.

Quality

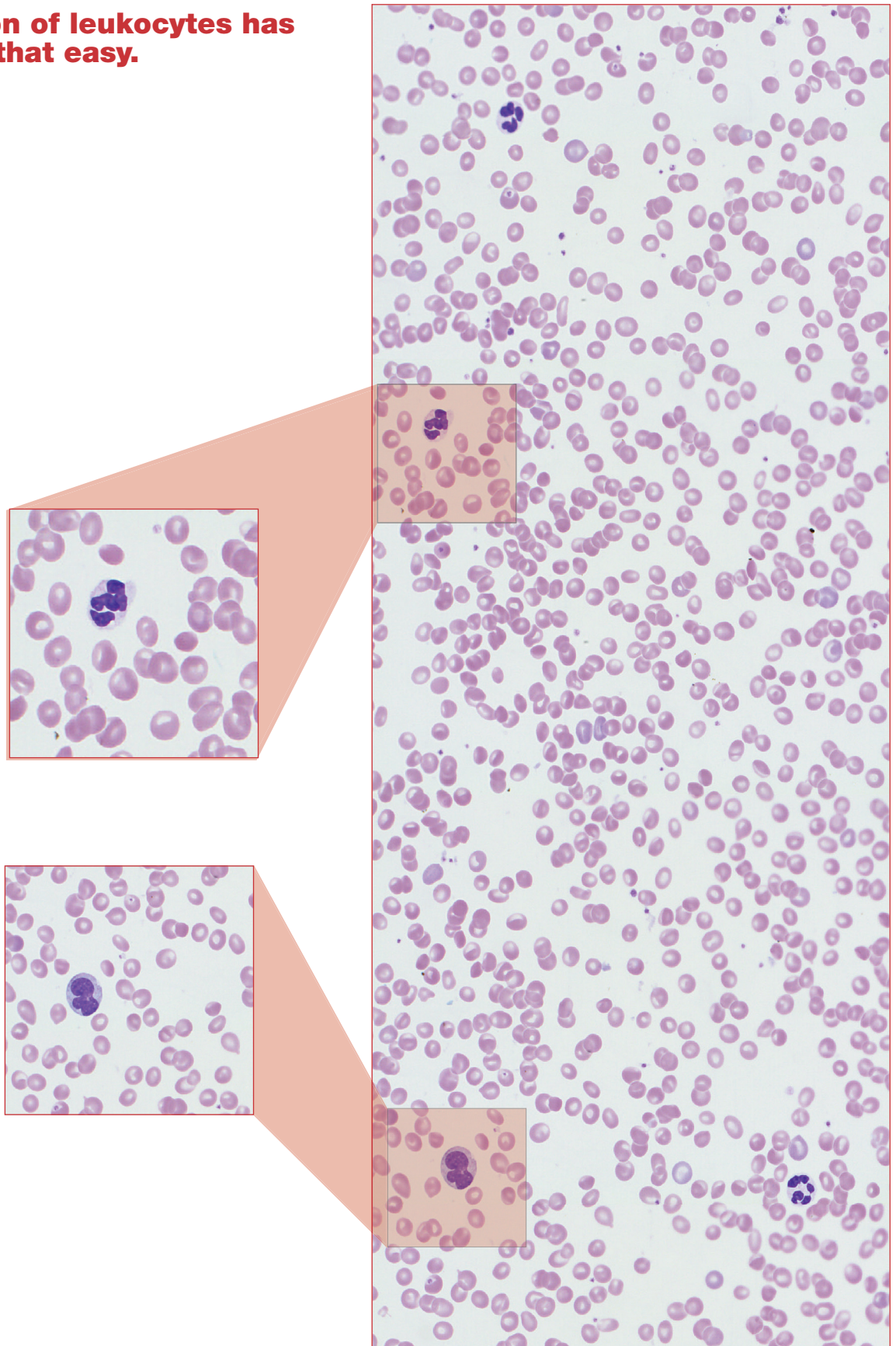
HemoFAXS® excels in fast performance, robust autofocus and precise recognition. In the clinical context HemoFAXS® provides excellent performance and security for processing hemograms.

Application

HemoFAXS® is an ideal screening tool for all types of hematological diseases. Both RBC and WBC abnormalities are detected, including leukemia-type alterations.



Classification of leukocytes has never been that easy.

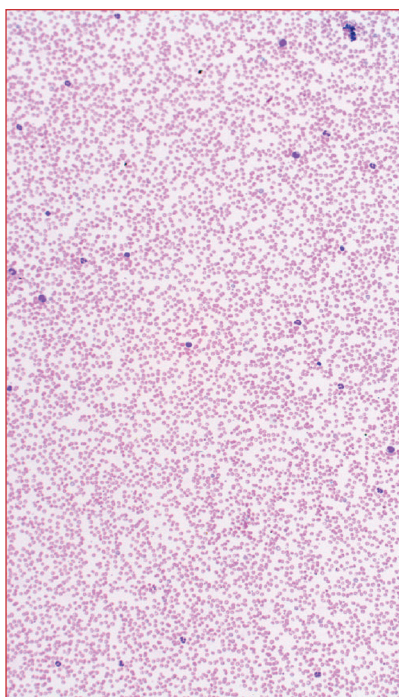


HemoFAXS

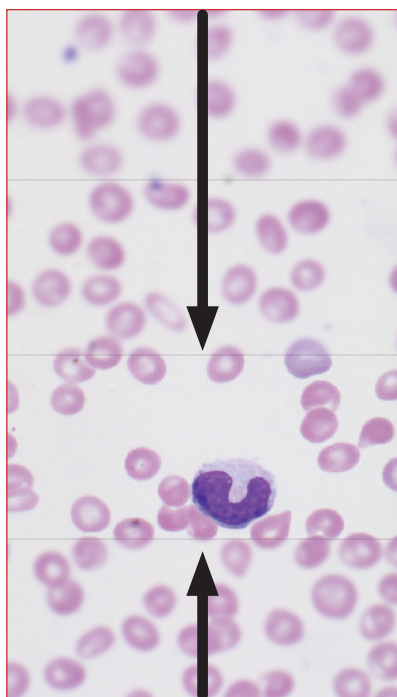
Workflow

Ease up your lab life

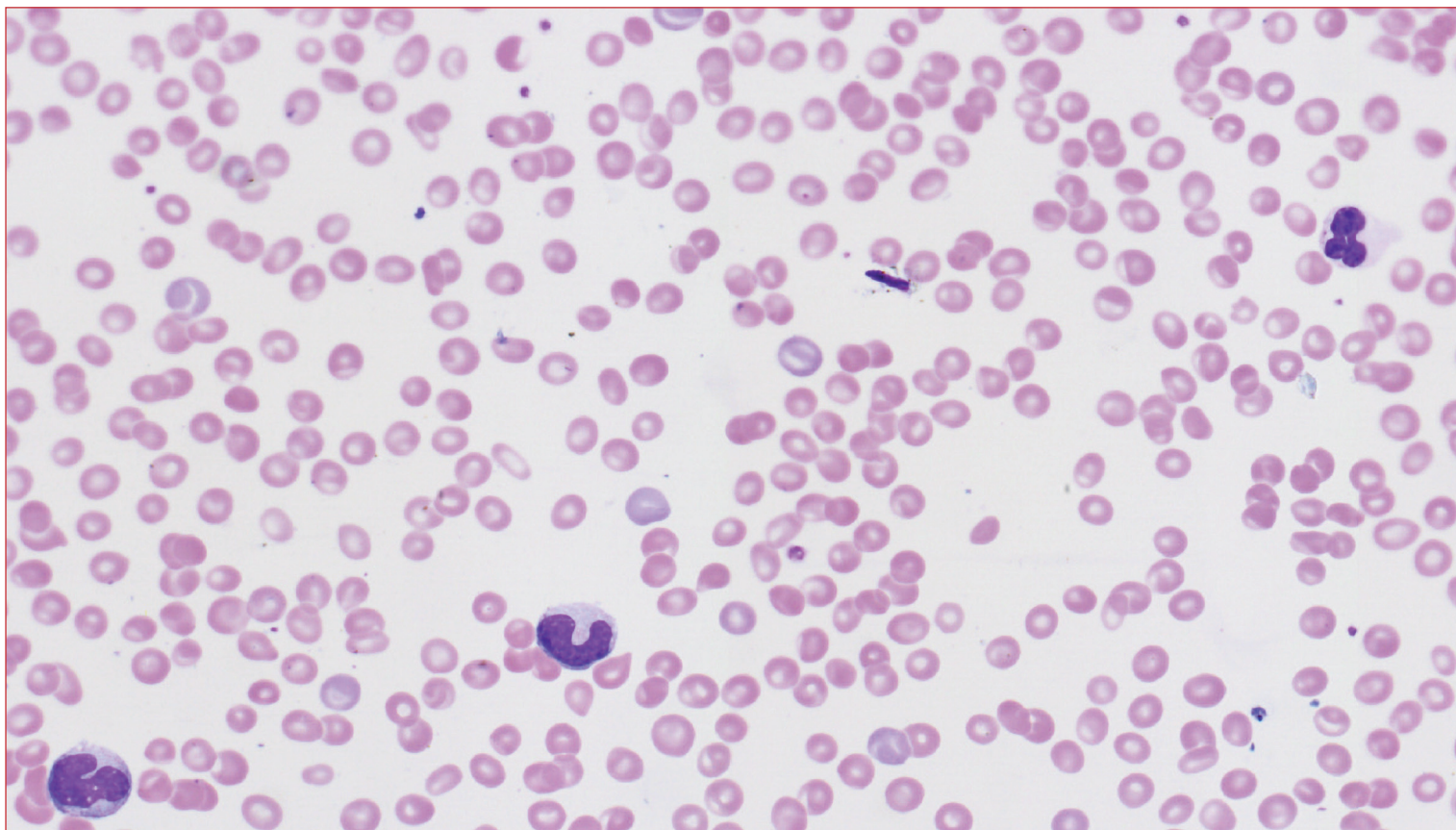
**Fast prescan
with 10x objective**



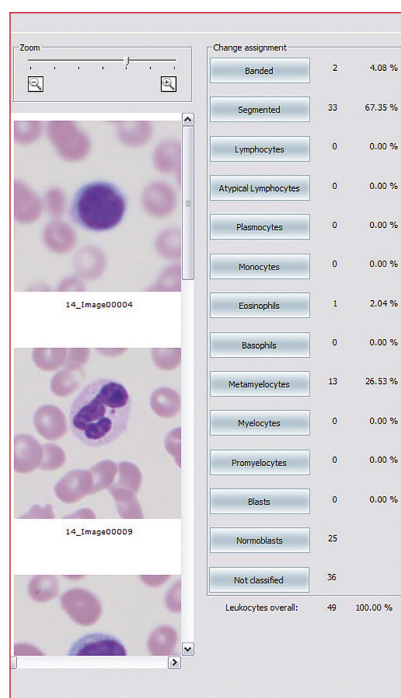
**Speed autofocus at
10x and 63x
magnification**



**High-resolution
image acquisition**

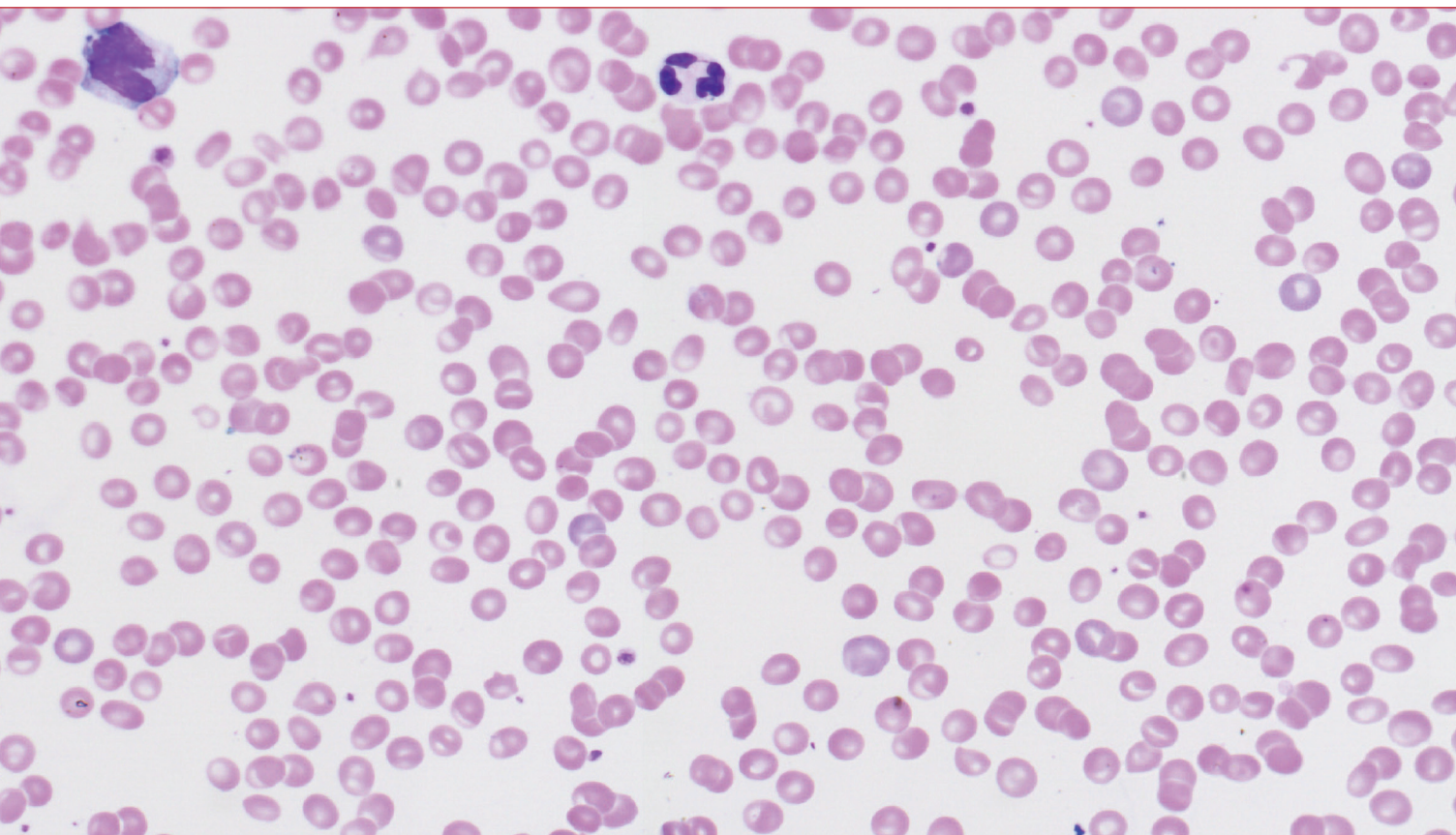


Versatile data evaluation



Detailed record data or direct transmission into the IT

| Class | Absolute | Relative |
|---------------------------|------------|----------------|
| Eosinophils | 1 | 0.92% |
| Basilophils | 0 | 0.00% |
| Lymphocytes | 0 | 22.02% |
| Monocytes | 26 | 23.85% |
| Atypical Lymphocites | 26 | 0.00% |
| Plasmocytes | 26 | 0.00% |
| Segmented | 26 | 53.21% |
| Banded | 0 | 0.00% |
| Metamyelocytes | 0 | 0.00% |
| Myelocytes | 0 | 0.00% |
| Promyelocytes | 0 | 0.00% |
| Blasts | 0 | 0.00% |
| Leucocytes Overall | 109 | 100.00% |
| Normalblasts | 0 | 0% |
| Not classified | 0 | 0% |



HemoFAXS

Workflow

Ease up your lab life

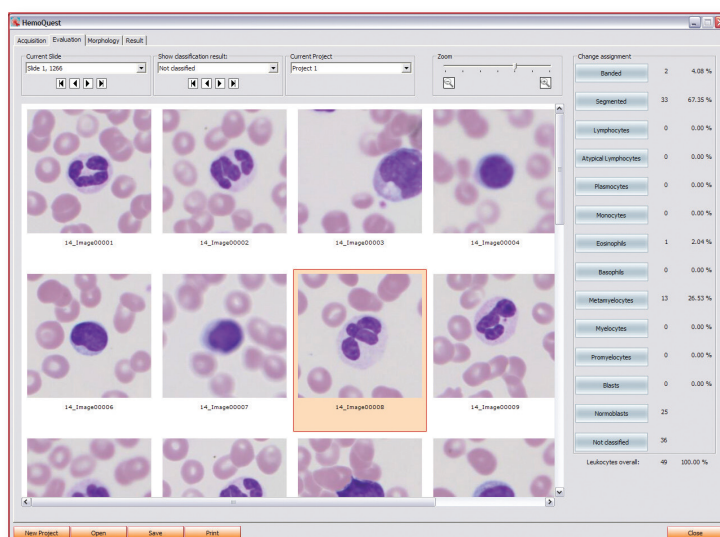
Image Acquisition and Processing

It is possible to analyse up to eight different slides.
The maximum number of cells can be selected.



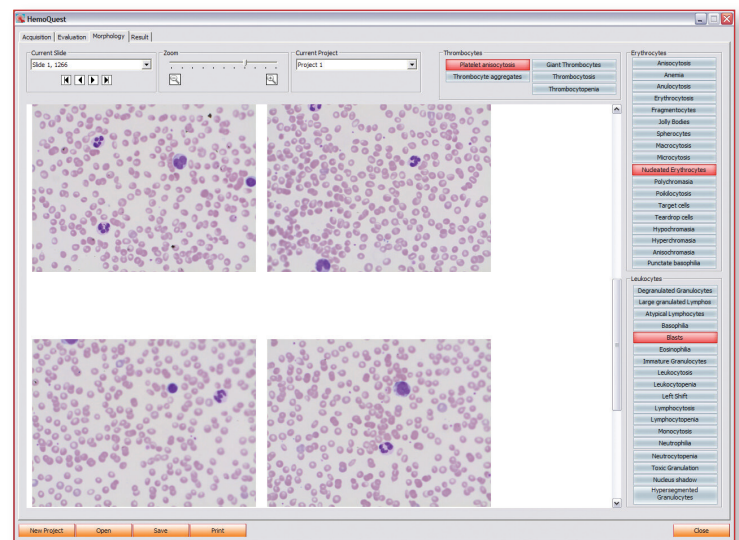
Classification

With a single button-click **HemoFAXS®** will start with the fully automated search for and allocation of target cells. Due to an especially developed auto-focus, images are acquired in highest quality. Certainly you can adapt manually the allocation of any cell to any leukocyte classes.



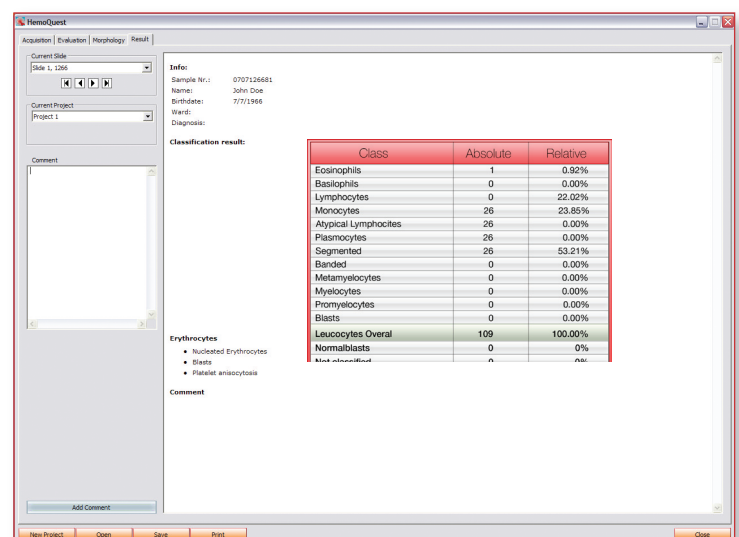
Erythrocyte morphology

Due to the overview imaging **HemoFAXS®** ensures a rapid statement of the red blood cells. On one click you can assign different clinical pictures to the red blood cells in the current specimen.



Validation and report generation

It is optional to add notes individually and to save data. In the report all parameters relevant for diagnosis are compiled.



HemoFAXS

Features and Benefits

Ease up your lab life

Features

- ❖ Preview / Pre-selection with 10x objective
- ❖ Acquisition with 63x Apo oil objective
- ❖ Accurate speed auto focus
- ❖ Image generation for detailed images
- ❖ Microscopic re-evaluation and detailed morphological view
- ❖ Rescan functionality



Benefits

- ❖ Fully automatic system
- ❖ Can be used additionally like an usual microscope for identification of any cell in the smear or tissue
- ❖ Individual upgrade to costumers needs on request
- ❖ No adjustments necessary
- ❖ Cell counting of manual and automatic stained smears within a wide variation
- ❖ Workflow control at any time possible
- ❖ Intuitive graphical user interface (GUI)
- ❖ Easy handling
- ❖ Perfect accuracy
- ❖ Fast acquisition
- ❖ Observer independent primary data
- ❖ Erythrocyte morphology
- ❖ Thrombocyte morphology
- ❖ Leukocyte morphology
- ❖ Saving of time and resources due to highest degree of automation
- ❖ Immediate transfer of results to hospital/laboratory database



Slide loader & bar code reader

Ease up your lab life

Prior PL-200 slide loader

The PL-200 provides 200 slide capacity, a small footprint, automatic slide detection and rapid slide changing.

Designed for applications where high throughput imaging of slides is required.

It is ideally suited for laboratories involved in digital imaging, telepathology, archiving of slides and the production of virtual slides, and enables true walk-away capability.

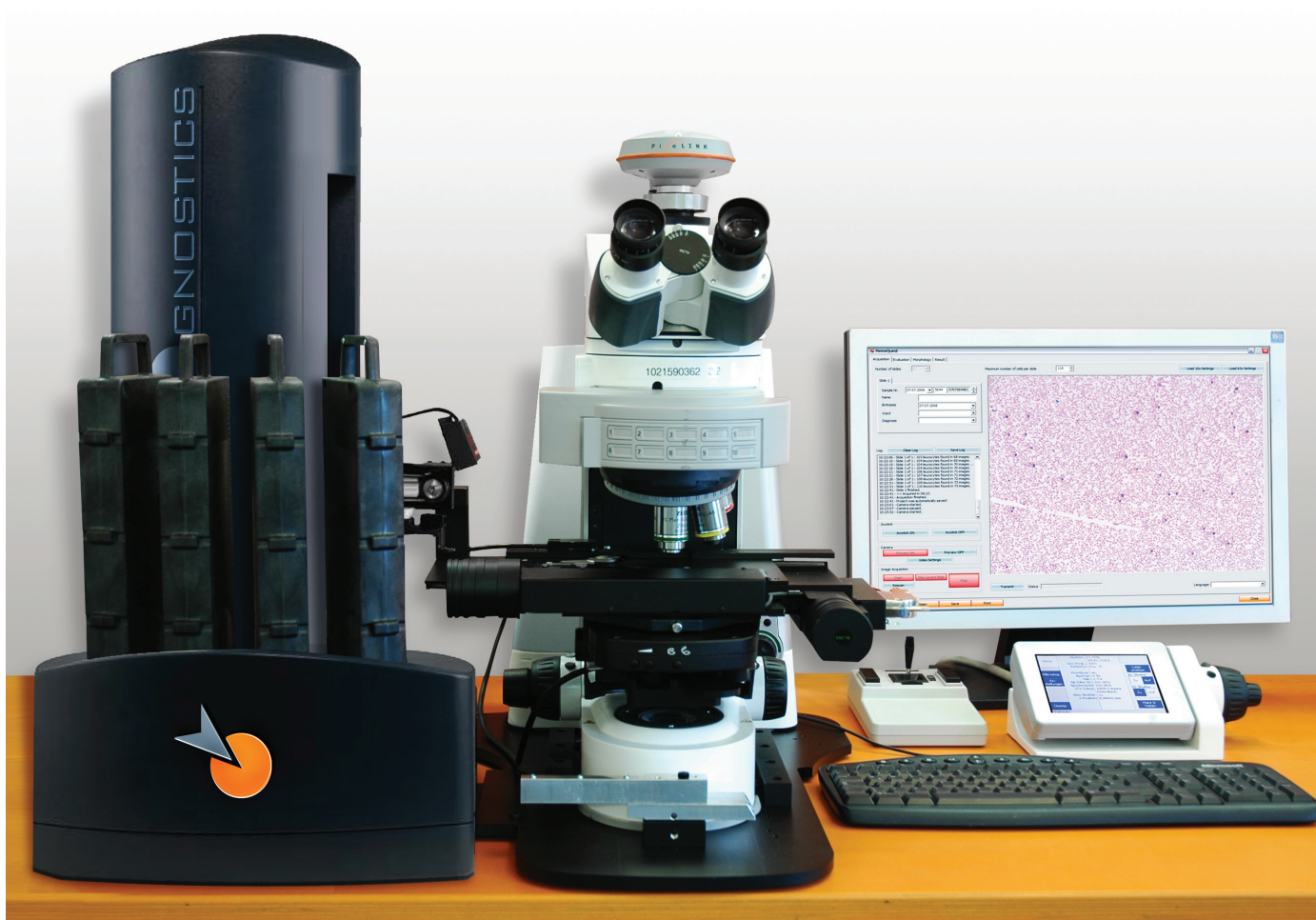
The system is compatible with a range of microscopes.

Gryphon D220 bar code reader



D200 Gryphon Instinctive Distance CCD Scanner is designed to read PDF417 & Linear Barcodes.

This Scanner has mastered the art of reading damaged barcodes and reading barcode from varying distances.



Technical Specifications

Ease up your lab life

High-end microscopes

Axiolmager.M1

Axiolmager.Z1

Fully motorized

Offers complete automation.

High resolution objectives

10x

63x immersion oil

High-performance workstation

24" TFT screen, 3.2 GHz Intel Quadcore,
2 Gigabyte RAM, 1 Terabyte HDD

Required space

120 cm x 80 cm (5.11 ft x 2.55 ft)

Illumination

12 V-100 W Halogen illumination
LED Diascopic illumination, pre-centered
(no adjustment necessary - option)

Acquisition times with 63x oil

2 - 3,5 minutes for normal blood smears per slide.
< 10 minutes for pathological blood smears per
slide, max 5,30.

High-precision motorized stage

Motorized stage for up to 8 slides

Resolution

Step size as low as 1.5 nm (0,0015 µm) for smooth
movement.

Repeatability

Relocation difference < 1 µm, so you can find on
the slide precisely what you see on screen.

Mark and find

Finds absolute stage positions at < 4 µm accuracy.
For reconsideration for examined slides.

Autofocus

Up to 100x Oil.

High-performance colour camera

Resolution

Up to 1.9 megapixels (1600 x 1200 px)
guarantees fine objective detail.

Frame rate

Up to 100 fps @ VGA for acquisition.

Sensor format

Up to 1" offers extremely wide fields of view.

Excellent colour reproduction

Use of multiple chromophores.

General implementation into hospital information
systems.

Technical and application support via remote
control.

| Scanning time | < 2.5 minutes |
|--|-----------------|
| Maximal searching time | < 5 minutes |
| Minimum number of leukocytes per slide | 300 |
| Maximal number of leucocytes per slide | 250 |
| Staining tolerance | YES |
| Manual Staining | YES |
| Automatic staining | YES |
| Morphology results | Button function |



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