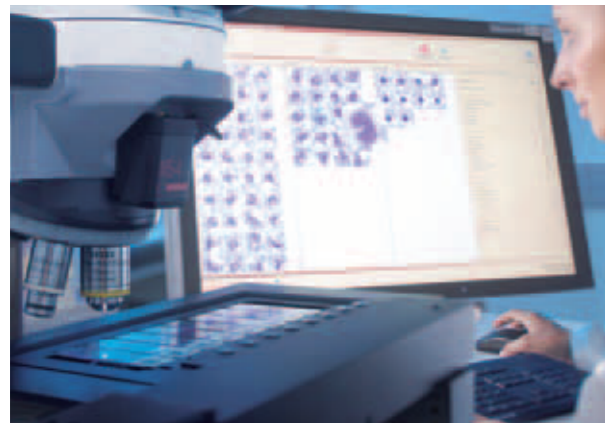# HemaCAM®
Technology for improved quality in Haematology.

The HemaCAM® Computer-Assisted Microscope system offers innovative technology in the laboratory to increase safety while sustainably reducing workload.


See more. Leukocyte classification with HemaCAM® is clearly arranged and structured.

System components

High-quality motorised microscope
Motorised scanning stage for up to eight slides
CCD microscope colour camera
Barcode reader for 1D and 2D
Workstation with HemaCAM® software (patent-protected procedures)
Colour-calibrated 24" TFT screen

Accessories (optional)
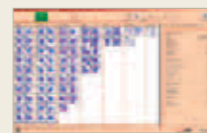
HemaCAM® Studio extension module
for visualising and evaluating cases at workstation PC concurrently with the running HemaCAM® system

Binocular tube with eyepieces
for live viewing of the slide

Vibration isolation platform
for isolating vibrations (e.g. vibrations caused by other laboratory equipment, trams etc.)

Additional insertion frame
for up to eight slides

Hema CAM ®

Computer-Assisted Microscopy for Haematology

developed by **Fraunhofer**
IIS

Hema**CAM**® For greater safety and efficiency.

Significantly simplifies work in the haematology laboratory.

Those responsible for analysing blood counts on a daily basis must be able to fully rely on their equipment at all times. Safety is clearly the top priority in a discipline such as haematology. Errors must be avoided without fail as they could have fatal consequences. Therefore, staff in clinical laboratories need optimal work support – they need a fully-automated microscope system: Hema**CAM**®.

Work more efficiently. With HemaCAM®, up to eight blood samples can be analysed in sequence

Intelligent technology: the HemaCAM® Computer-Assisted Microscope system significantly simplifies the laboratory workload.

Hema**CAM**® delivers consistent diagnostic quality

The differential blood count is an essential part of haematology. HemaCAM® – Computer-Assisted Microscopy for Haematology – automatically analyses blood smears and assists in the classification of leukocytes. HemaCAM® significantly reduces the workload and simplifies the creation of a quick and objective differential blood count, particularly for anomalous blood samples.

Significant time saver for classification

Differential blood counts are normally predefined in haematology analysers and flagged for deviations in the blood count, for shifts in the normal distribution of leukocytes or for the presence of atypical cells. This leads to the preparation of a blood smear and manual counting on the microscope. This is where HemaCAM® helps. HemaCAM® can automatically count up to eight blood smears in sequence. HemaCAM® also suggests a classification.

Hema**CAM**® offers an adaptive database

HemaCAM® is based on image analysis concepts for medicine. Leukocytes are automatically localised in the blood smear and classified into clinically relevant sub-classes. The classified cells are clearly displayed and can then be examined at different resolutions. The cells are classified by a database integrated in HemaCAM®. The database and the user interface can be adapted for the classification of the respective laboratory.

Microscopic live view

For subsequent differentiation, critical cells can also be viewed LIVE at high resolution – or optionally viewed directly through the microscope eyepieces.

Intuitive user guidance

Drag and drop is used to easily reclassify leukocytes as required. Additional information on morphology (RBC, WBC, platelets) and comments on the individual blood samples can be added manually.
HemaCAM® is not only used to determine the percentage distribution of cells in the blood, but also to traceably document and archive classification for each individual cell.
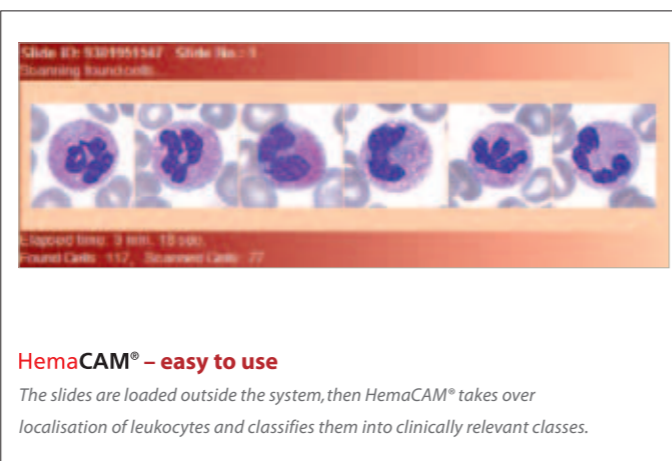

Hema**CAM**® – easy to use

The slides are loaded outside the system, then HemaCAM® takes over localisation of leukocytes and classifies them into clinically relevant classes.

Raising quality through continuing education

HemaCAM® is very well suited for continuing education. All cells can be viewed and discussed individually or in groups. Remote access using the HemaCAM® Studio software is also possible.

Hema**CAM**® is future-proof

Additional analytical processes for differentiation of bone marrow or liquor or exclusion of a malaria infection are planned to provide optimum support for laboratory analyses.
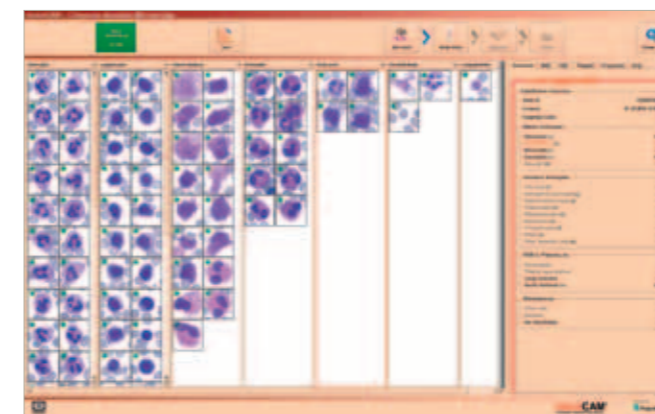
Intuitive and well-designed user interface for classification view.

The many advantages of Hema**CAM**®

Advantages in analysis:
- ✓ *Quick and reliable blood smear counting*
- ✓ *Microscopic live view of cells*
- ✓ *Measurement, annotation and marking of cells*
- ✓ *Individually configurable database, customisable to the classification used by the respective laboratory*
- ✓ *Digital storage of all relevant data*
- ✓ *Easy integration into existing laboratory information systems (LIS)*

Advantages at work:
- ✓ *Support for the standardisation and quality assurance process in clinical haematology*
- ✓ *Reliable diagnosis support based on objective and reproducible classification suggestions*
- ✓ *Cell counts and classification results are saved in a database and can be traced and called up at any time*
- ✓ *Short learning phase thanks to the intuitive user interface*
- ✓ *Also ideal for training and continuing education*