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.

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)
- Binocular tube with eyepieces for live viewing of the slide
- Vibration isolation platform for isolating vibrations (e.g., vibrations caused by other laboratory equipment, trains etc.)
- Additional insertion frame for up to eight slides

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

HemaCAM® developed by
Fraunhofer
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: HemaCAM®.

HemaCAM® 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.

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.

HemaCAM® 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.

HemaCAM® 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 atypical 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.

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

Advantages in analysis:
- Quick and reliable blood smear counting
- Microscopic 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

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

HemaCAM® 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.

The many advantages of HemaCAM®

Intuitive and well-designed user interface for classification view.