

EXTENDED BLOOD CELL DETECTION

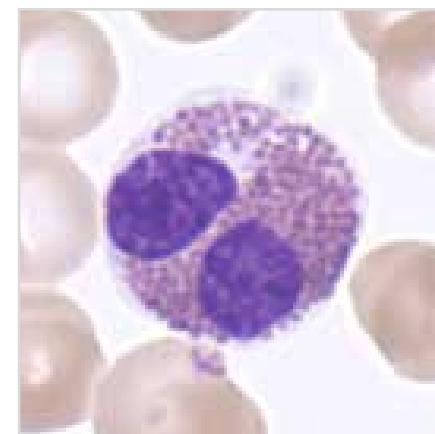
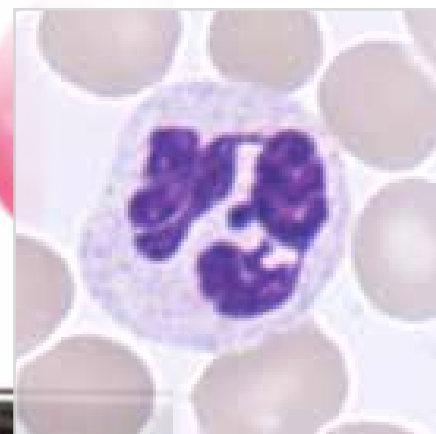
DNN-BASED
OBJECT
DETECTION

DNN PRE-
CLASSIFICATION
OF WBC

OBJECTS
GALLERY FOR
REVIEW

ONE-CLICK
OBJECT
RELOCATION

INTERACTIVE
GRAPHS AND
TABLES



Whole Blood Cell (WBC) counting determines the relative distribution of leukocyte subtypes and is crucial for diagnosing infections, immune disorders, and hematological diseases.

While flow cytometry enables automated analysis, it lacks sensitivity to subtle morphological features. Manual microscopy, though labor-intensive and prone to inter-observer variability, remains the gold standard for detecting fine structural changes in cell morphology.

The Customization Package for Extended Blood Cell Detection enables you to use DNN-powered workflows for automated whole blood cell counting with your Metafer installation. The workflows integrate DNNs trained on expert-annotated data and are ready for implementation and validation in your lab.

Users can quickly confirm or adjust cell classification proposals with a single keystroke, with added convenience from the optional RapidScore keyboard that displays all available

cell classes directly on the keys. Any detected object can be instantly relocated under the microscope with one click—no need to manually reposition the sample.

Review outcomes are clearly presented in tables and graphs, which can be exported or compiled into customized reports. DNNs, data, and images are stored on your local servers. The entire system operates locally, without requiring any connection to external resources.



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MetaSystems software provides, among other functions, features to assist users with image processing. These include, but are not limited to, the use of machine and deep learning algorithms for pattern recognition. The output generated in this process should be regarded as preliminary suggestions and, in any case, mandatorily requires review and assessment by trained experts.

MetaSystems offers **Customization Packages** for application workflows that have been successfully implemented for customer labs using standard Metafer platform functionality. It is expected that they can be implemented for other customer labs using similar workflows and slide preparation procedures. If a Customization Package is purchased, MetaSystems product specialists will - based on their experience from other similar application cases - support the customer lab in adapting the Metafer software configuration to their needs. The performance of the solution will depend on the quality of the customer slides and the expertise of the users, MetaSystems cannot specify or guarantee any performance parameters. The validation of the solution for clinical use is the sole responsibility of the customer lab.

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