

## HEMAWEB – NETWORK FOR EDUCATION AND QUALIFICATION IN HEMATOLOGY

### Fraunhofer Institute for Integrated Circuits IIS

Management of the institute  
Prof. Dr.-Ing. Albert Heuberger  
(executive)  
Dr.-Ing. Bernhard Grill

Am Wolfsmantel 33  
91058 Erlangen, Germany

Contact  
Christian Müntenmayer  
Phone +49 9131 776-7310  
christian.muenzenmayer@  
iis.fraunhofer.de

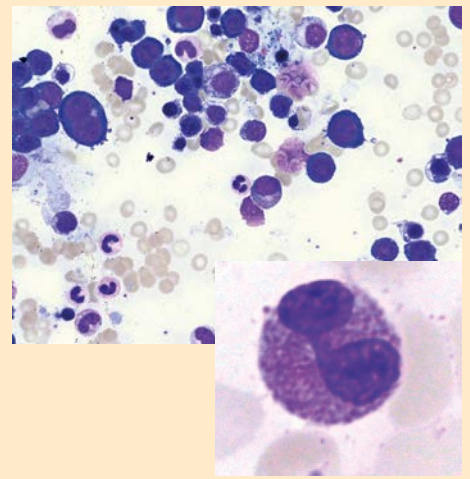
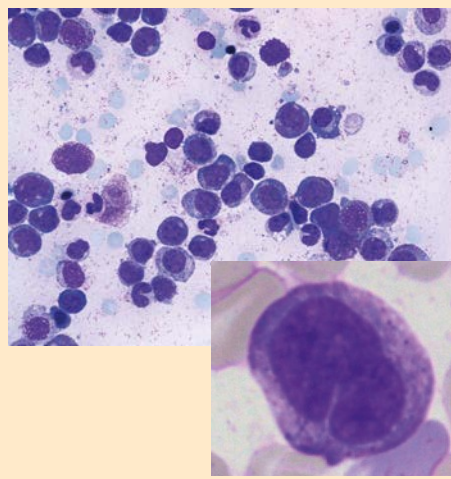
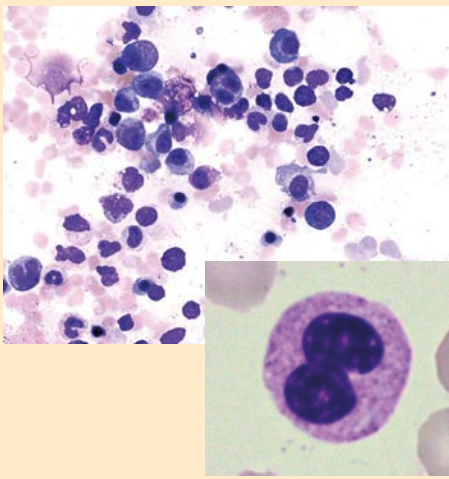
[www.iis.fraunhofer.de](http://www.iis.fraunhofer.de)

### Motivation

The morphological differentiation of cells is a challenging task for which experience and continuous qualification over many years is needed. In the field of diagnostics of variations in blood and hematopoietic organs the qualification of health personnel is of particular importance. Extra-occupational education and training needs are not sufficiently covered by microscopy courses. For this reason the Fraunhofer Institute for Integrated Circuits IIS in cooperation with Instand e.V. is developing an interactively usable knowledge and qualification platform for professionals in hematology in the area of cell morphology.

### HemaWeb

The HemaWeb platform contains four complementary modules in order to cover the significant aspects of knowledge transfer, knowledge development and knowledge assurance and to provide a professional exchange with tutorial support and online training courses and webinars with certified examinations. In addition to the interactive discussion of clinical cases in webinars and case conferences through a video conferencing platform, a training forum with a hematologic case database and interactive test assignments is developed. The functionality and the benefit of the platform are proven in a nationwide pilot study. Furthermore a completely digital inter-laboratory test with an intuitive virtual slide viewer for digitized microscopy slides is developed and validated in cooperation with Instand e.V.



Sample images of bone marrow cells

### Benefits

The platform provides access to high-quality slides and flexible, extra-occupational education without the obligation to be present. Improved education and training possibilities are realized and time- and cost-efficient execution of inter-laboratory tests with a higher grade of comparability are possible. Base technology such as the intuitive virtual slide viewer for virtual microscopy are available for other application scenarios.

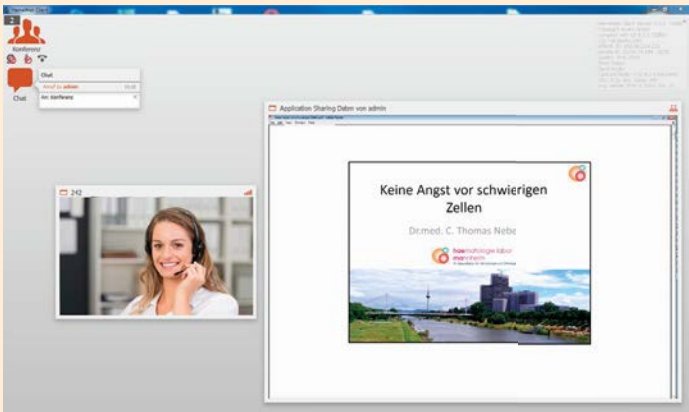
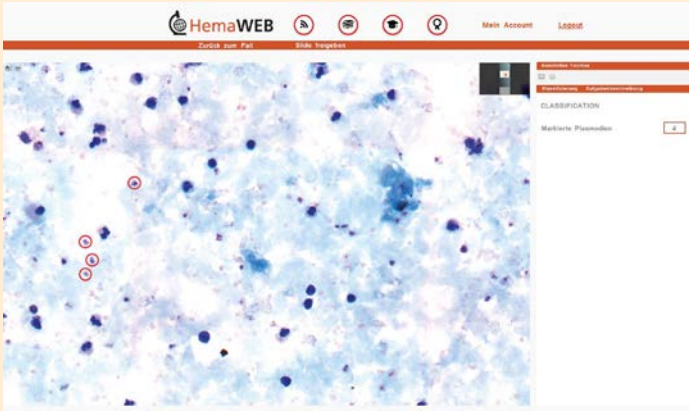

### Acknowledgements

This work was funded by the Federal Ministry of Education and Research (FKZ 01PF08032A).

SPONSORED BY THE



Federal Ministry of Education and Research

*Webinar module with conferencing software*

*Quality control module with virtual slide viewer*

*Training and qualification database for hematology with interactive exercises*