

Details

CECAD Imaging Facility, University of Cologne (CECAD Image)

The CECAD Imaging Facility was established as part of a new founded excellence cluster CECAD (Cologne Cluster of Excellence in Cellular Stress Responses in Aging-associated Diseases) and is a joint venture of the Mathematics/Natural Sciences Faculty and the Medical Faculty of the University of Cologne. The aim of our facility is to support scientists in their research concerning light microscopy imaging and their data analysis. The facility is equipped with state-of-the-art light microscopes for cellular, molecular and intravital imaging including a big variety of widefield and confocal, a multiphoton as well as two superresolution microscopes. Scientists are trained individually on the equipment best suited for their research approach, afterwards they are able to independently book and use the systems. A team of a technical assistant, two microscopists and a bioinformatician are always available to assist the users. Additionally, two dedicated powerful analysis stations are located within the facility, equipped with different software programs for further data presentation, analysis and deconvolution. More specialized techniques like FRAP, FLIM, laserablation and superresolution are covered by the facility as well.

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[To website](#)

Host Institution

Universität zu Köln
Albertus-Magnus-Platz
50923 Köln
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Deutschland
<http://www.uni-koeln.de>

Scientific Domain

Primary Subjects:

- Biology
- Medicine

Secondary Subjects:

- Chemistry
- Physics

Category

Biomedical Imaging Facilities

Scientific Services

In a first meeting, the project is discussed, the proper microscope found and the user individually trained on this scope. Afterwards, the user is able to book this microscope via our online booking homepage and use it independently. In case of problems, our staff is helping them any time. The Imaging Facility team further supports the scientists in their choice of labelling, sample preparation, special imaging techniques as well as data analysis. The latter can be done either on their individual computers or on our analysis stations with dedicated software. In collaboration with the scientists we help establish new imaging techniques, user-tailored algorithms for data analysis or the application for new equipment and equipment upgrades. Scientific talks within the field of microscopy and microscopic techniques are given by the Imaging team on campus or as part of Master's and PhD programs.

Scientific Equipment

- Confocal and superresolution microscope with white laser and FLIM

- Multiphoton microscope with OPO and FLIM
- Superresolution microscope based on localization, TIRF
- Spinning disc confocal microscope with 355nm laser ablation
- Confocal microscope
- Confocal microscope with 266nm laser ablation
- Laser microdissection microscope
- Slidescanner with autoloader
- brightfield microscope within an incubator

Keywords

- superresolution
- STED
- dSTORM, GSD
- confocal microscopy
- intravital microscopy
- laser microdissection
- laser ablation
- FLIM, FRET
- FRAP
- histoscanner
- Multiphotonenmikroskopie

Networks

German Biolmaging

<https://www.gerbi-gmb.de/>

informal: regular meeting of imaging facility managers in the region of Rhineland

Users per annum

Internal Users: 72

External Users in total: 34

External Users: 36

External Users in the EU: 0

External Users outside of EU: 0