

Newsletter ULMTeC Core Facilities

March 2026



ULMTeC - Achieve More Together

The ULMTeC Core Facilities – at your Service!

For many years the Medical Faculty of Ulm University has pursued a strategy of establishing central research infrastructures (“core facilities”) that are accessible to internal and external researchers.

Core Facilities (CF) are service units that offer centralized access to advanced instruments, services, technologies and highly specialized expertise, thereby enabling sustainable and efficient usage of the available research resources.

In 2024 the Medical Faculty further professionalized its infrastructure by establishing the **“Ulm Life Science and Medicine Technology Center” (ULMTeC)**, integrating all its CFs within this operational hub.

Through ULMTeC, researchers benefit from access to cutting-edge equipment, specialized trainings, expert technical support, and high quality standards, ensuring excellence and effectiveness in your research projects.



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Explore the Latest Core Facility Advancements



New Core Facility launched!

In May 2025, the Core Facility Viruses (CFV) was launched. Several academic groups from the university and even industrial clients have already been supported with consulting, production and characterization of viral vectors, generation of cell lines, and the use of our S2 facility for their own experiments. The CFV also provides genetic engineering project management for the use of virus-based agents in clinical studies at the university hospital. More information:

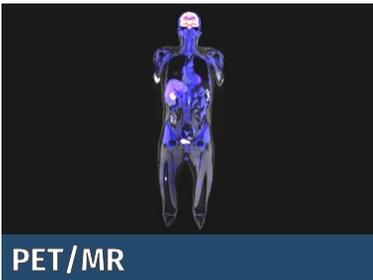
www.uni-ulm.de/med/ulmtec/cf/viruses/



Hands-on Workshop!

The Core Facility Laser Microdissection invites you to a hands-on workshop on April 13 - 14, 2026. Laser microdissection combines classical histology with modern technologies such as spatial transcriptomics and microchanneling, enabling the precise isolation of defined cell populations. In this 8-hour course, you will be introduced to the theoretical fundamentals and practical workflow of laser-assisted microdissection using standard tissue samples. Registration:

www.uni-ulm.de/med/ulmtec/services/academy/lmd-anmeldung/



PET/MR Upgrade!

End of 2025 a completely renewed state-of-the-art PET/MR system has been installed in the Core Facility. This system allows for targeted examinations of all body regions, including multi-parametric imaging of the brain. In addition, new radiotracers are currently in development, which can be combined with MR sequences on the PET/MR system for structural, metabolic, and functional imaging.

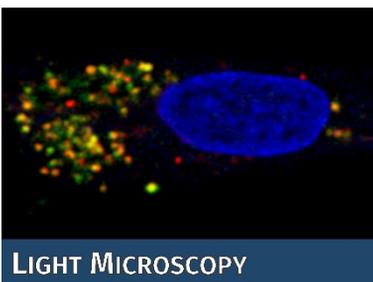
www.uni-ulm.de/med/ulmtec/cf/pet-mr/



New Sequencer!

Since mid 2025, the new sequencer NextSeq1000 is available in the Core Facility Genomics. Since then the first runs have been successfully completed, providing customers access to a state-of-the-art device with significantly reduced sequencing costs. You can find a brief presentation highlighting the advantages of the new device on our website.

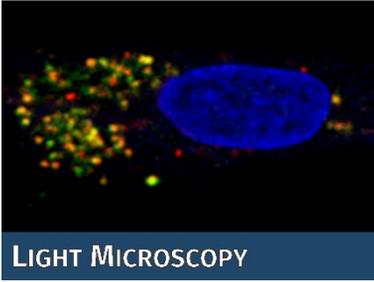
www.uni-ulm.de/med/ulmtec/cf/genomics/



New confocal system!

The Core Facility Light Microscopy has recently received its new Leica Stellaris Falcon DIVE confocal system, also incorporating a factory refurbished Spectra Physics MaiTai multiphoton laser with improved power and pulse duration. The new system is specifically suited for multiplex imaging with highly sensitive detectors and time correlated single photon counting (TCSPC) applications such as FCS, FLIM/FRET and metabolic FLIM imaging.

www.uni-ulm.de/med/ulmtec/cf/microscopy/



Successful 91B application for superresolution microscopy!

In addition to the new confocal microscope, our DFG 91B application for an Abberior STED superresolution module for our Leica TCS SP8 has been approved. During in house testing, it achieved resolutions down to 30 nm. Delivery of this system is expected for Q2, 2026. If you are interested to see how these functionalities can help your imaging needs, don't hesitate to contact us for an informal discussion and testing of your samples!

www.uni-ulm.de/med/ulmtec/cf/microscopy/



Hands-on Tutorials!

Specializing in the curation and analysis of biomedical data, we support researchers across the full data lifecycle. We maintain a dedicated Dataverse for storage and annotation of medical faculty datasets, and offer Research Data Management training based on FAIR principles, including guidance on tools like LabArchives. Our Workshops combine short lectures with hands-on tutorials covering R programming, Bioconductor, and (spatial) RNA-seq data analysis.

www.uni-ulm.de/med/ulmtec/services/academy/workshops/



Successful 91B application for spectral Image-Sorter!

We are delighted to announce that our DFG 91B application has been approved. With the new instrument we will be able to combine spatial and morphological imaging of a cell with spectral flow cytometry in real time. This additional imaging function which can be used during the cell sorting process will significantly improve the quality of the sorting process and open up new areas of application, that will help our users gain valuable insights for their projects.

www.uni-ulm.de/med/ulmtec/cf/cytometry/



The **ULMTeC Academy** has now been established to strengthen the teaching and educational mission of ULMTeC. Our Core Facilities participate in the Academy by offering workshops to present their technologies and methods or individual hands-on internships. This initiative provides a structured way to demonstrate capabilities, attract new users, and introduce potential users to advanced research tools. All available Core Facility Workshops and internships together with further information can be found on our website:

www.uni-ulm.de/med/ulmtec/services/academy/



Successful research is based on the availability of cutting-edge technologies and their effective usage.