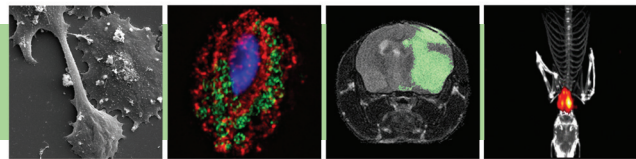


Charles University

Center for Advanced Preclinical Imaging (CAPI) provides multimodal in vivo imaging of small laboratory animals. CAPI is equipped with a unique combination of anatomical (X-ray, CT, MRI) and molecular (PET, SPECT, fluorescence, luminescence, Cherenkov radiation, magnetic particle imaging) methods. The mice and rats can be investigated by any combination of correlative imaging methods.

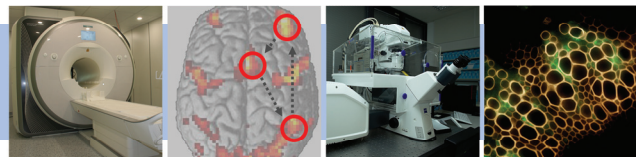
Imaging Methods Core Facility (IMCF) at BIOCEV offers a wide range of cutting-edge advanced fluorescence microscopy methods and 3D ultrastructure imaging by dual beam scanning electron microscope, covering single molecule, live cell, tissue and intravital imaging. The area of unique expertise is super-resolution microscopy, functional imaging (FLIM, FCS) and FIB-SEM.



Masaryk University

Within Masaryk University, CEITEC – Central European Institute of Technology and Faculty of Informatics take part in Czech-Biolmaging. CEITEC offers imaging in biological as well as in medical facilities. For the biological imaging, Cellular Imaging Core Facility can offer services in the area of light microscopy and the access to widefield and confocal microscopes of the laboratory of Functional Genomics and Proteomics of Plants. Multimodal and Functional Imaging Laboratory provides advanced services in human MR imaging and MR spectroscopy in high field (3T) and electrophysiological techniques.

Faculty of Informatics is a leader in developing new methods for biomedical image acquisition and analysis, including development of tailor-made software.



Contact us

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**APPLY FOR CZECH-BIOIMAGING
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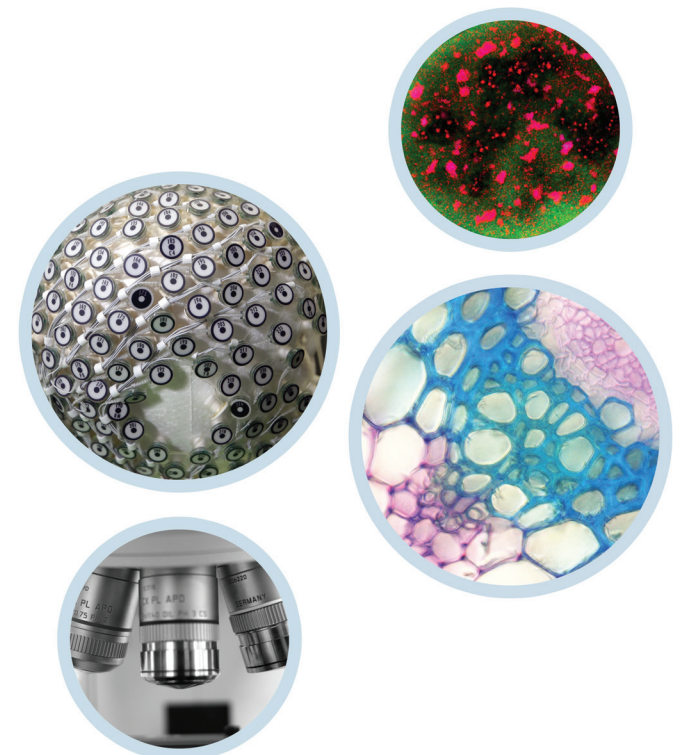
Czech-Biolmaging partners



Palacký University
Olomouc



NATIONAL RESEARCH INFRASTRUCTURE FOR BIOLOGICAL AND MEDICAL IMAGING



The national infrastructure for biological and medical imaging (Czech-Biolmaging) is supported by the Ministry of Education, Youth and Sports, Czech Republic (project No. LM2015062).



www.czech-bioimaging.cz

Czech-Biolmaging is a national research infrastructure for biological and medical imaging consisting of leading imaging facilities in the Czech Republic. Czech-Biolmaging provides an open access to a wide range of imaging technologies and expertise to all scientists by a unified and coordinated logistics approach.

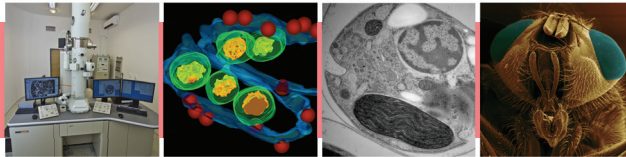
Czech-Biolmaging offers access to, for example, advanced light microscopy, fluorescence microscopy, super-resolution microscopy, electron microscopy, correlative microscopy, sample preparation, neuroscience imaging, magnetic resonance, and magnetic particle imaging.

Czech-Biolmaging provides users with expertise and guidance starting from designing an experiment to data analysis. Czech-Biolmaging also develops new imaging methods and organizes training programmes.

Czech-Biolmaging infrastructure is closely interlinked with the pan-European ESFRI large research infrastructure Euro-Biolmaging. The Czech-Biolmaging backbone is formed by two Euro-Biolmaging node candidates: **Advanced Light and Electron Microscopy Multi Modal Multi Sited Node** in Prague/Vestec, and **Advanced Light Microscopy and Medical Imaging Multi Modal Multi Sited Node** in Brno.

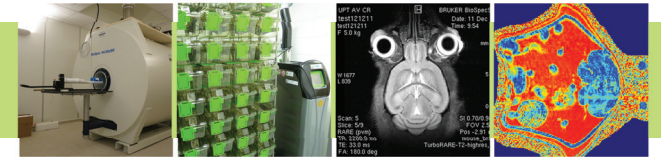
Biology Centre CAS

Laboratory of Electron Microscopy is an open supporting facility that offers services in preparing, imaging and interpreting images of biological samples at the highest resolution. It uses a broad spectrum of modern techniques, including cryo-methods, immunolocalization, electron tomography and correlative light and electron microscopy.



Institute of Scientific Instruments CAS

ISI provides 9.4T and 4.7T magnetic resonance imaging (anatomy, perfusion, diffusion) or spectroscopy of mice/rats/rabbits in vivo, of fixed biological samples or materials in vitro. Animal model and measurement protocol development, collection of samples for optical or electron microscopy, and IVC-housing for mice/rats can be arranged.

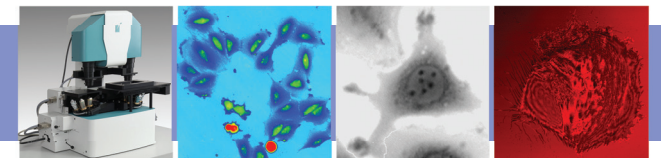
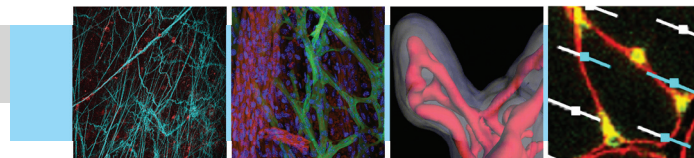


Institute of Physiology CAS

9 instruments are available, especially confocal and multiphoton microscopic systems and optical projection tomography. Training and consultations in advanced fluorescence microscopic techniques, image analysis and processing are provided. Detailed information: <http://www.fgu.cas.cz/articles/529-czech-bioimaging-2016-2019>

Brno University of Technology

Experimental Biophotonics Core Facility offers advanced light microscopy for investigation of live cells. Coherence controlled holographic microscope Q-PHASE (Tescan) for study of living cells with quantitative phase imaging and measurement. Confocal laser scanning microscope A1R (Nikon) for real time fluorescent and reflection imaging.



Institute of Molecular Genetics CAS

Microscopy Centre offers a wide range of state-of-the-art light and electron microscopy equipment and techniques.

- LM includes 12 microscopy systems which range from routine fluorescence microscopes, confocal microscopes up to high-end super-resolution systems STED and N-SIM. Big emphasis is given not only to data acquisition, but also to image reconstruction, processing and analysis.

- EM provides expertise and cutting edge equipment for a broad range of biological sample preparation techniques. The possibilities of ultrastructural imaging include routine TEM observations as well as 3D electron tomography, cryo-electron microscopy and electron energy-loss (EELS) analysis.

Institute of Experimental Botany CAS

Imaging facility of IEB CAS provides high-end instrumentation and expertise for demanding tasks in the field of confocal laser scanning and spinning disk microscopy, structured illumination and transmission electron microscopy. Methods of *in situ* detections and *in vivo* microscopy are optimized mainly in the field of plant cell biology.

Palacky University Olomouc

The Palacky University node is situated in the Institute of Molecular and Translational Medicine in Olomouc. It is a cutting-edge research institute equipped with high quality microscopic technologies including: Fluorescence, confocal and super-resolution microscopy and stain-free microscopic techniques (AFM, IR, Raman microscopy).

