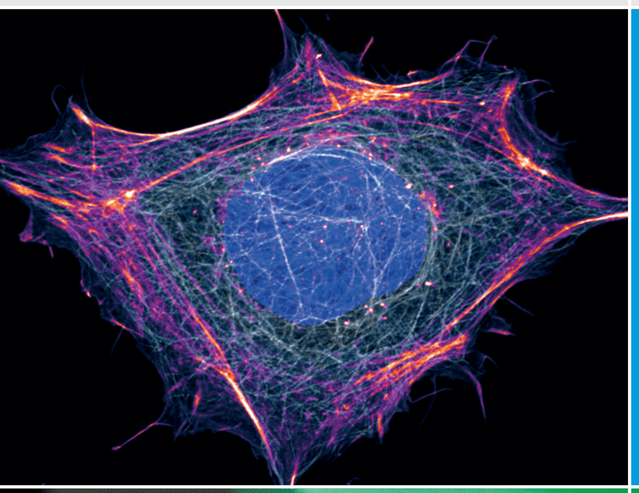
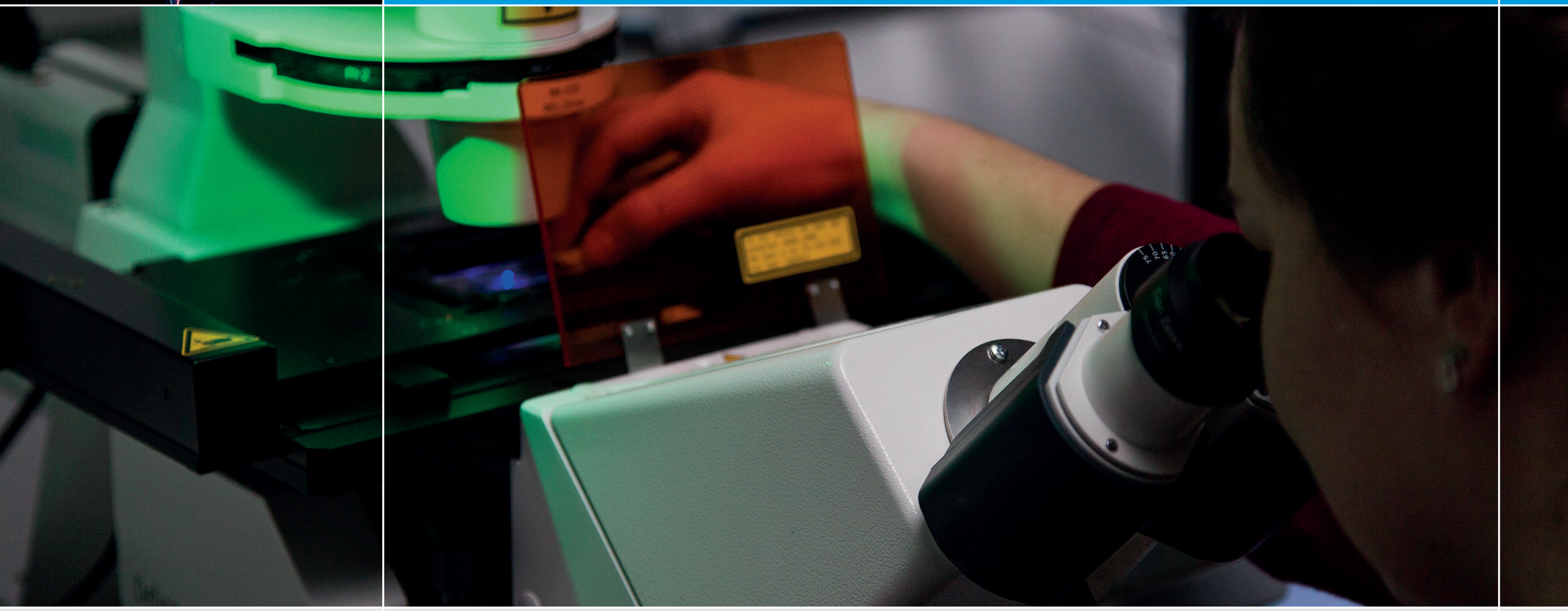
Babraham Institute

Life Sciences Research
For Lifelong Health

Imaging Facility



The Imaging Facility provides a state-of-the-art microscopy and image analysis service, enabling scientists to use advanced imaging methods in their research. The Facility offers training and supported access on a wide range of technologies including confocal, high content, super-resolution and electron microscopy as well as solutions for image processing and quantification.



Confocal and multi-photon imaging

- Two point-scanning systems are available for flexible high-resolution imaging and one spinning disk system optimised for live cell applications.
- Multiphoton imaging is provided with a Zeiss LSM 7 microscope equipped with a dual laser system, and optimally configured for intravital imaging applications.

SIM and STORM super-resolution microscopy

- The Facility offers a Nikon system which combines two super-resolution methods: Structured Illumination Microscopy (SIM), which can achieve ~120 nm resolution and Stochastic Optical Reconstruction Microscopy (STORM), which can achieve ~20 nm resolution.

Imaging and analysis for cell-based assays (high-content imaging)

- For high content imaging applications, the Facility has an InCell 6000 equipped with a robotic loader. This laser-based semi-confocal automated imaging system can take high-resolution pictures of cells cultured in standard format multi-well plates and slides.
- The Facility offers a variety of image analysis services to support high content imaging applications, including training on analysis software packages and writing custom scripts to create a complete analysis pipeline.

Scanning electron microscopy with focussed ion beam (FIB SEM)

- The Facility has recently acquired a Zeiss 550 CrossBeam FIB SEM, which combines a high-resolution field emission scanning electron microscope with a focused ion beam. This gives an instrument with many capabilities including routine high-resolution SEM, 3D EM and nano-patterning.

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