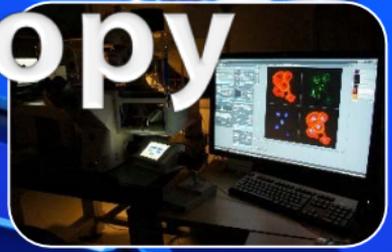


Microscopy



At the Barts Cancer Institute, our Microscopy facility provides access to a range of microscopes. This service offers support, advice and training to researchers both within and beyond the Institute.

Confocal Imaging

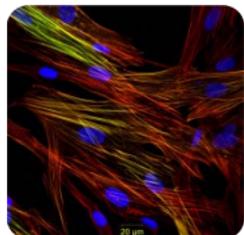
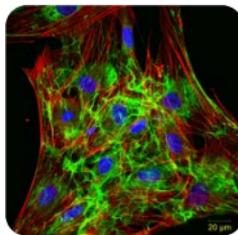
LSM 510 and **LSM 710** confocal microscopes, each equipped with 405nm, 488nm, 543nm, and 633nm lasers. Both are inverted and fitted with an incubation chamber, allowing users to perform live imaging experiments that can be recorded as a time series. Applications include localisation/colocalisation, endocytosis, signalling, invadopodia studies, invasion in organotypic cultures, Z stacking for three dimensional processing and differential interference contrast (DIC).

Laser Capture

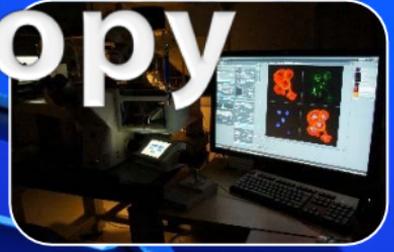
P.A.L.M. Laser Microdissection System for dissection and capture of specified regions from tissue samples and subsequent extraction of DNA, RNA or protein. Samples can be collected from paraffin-embedded sections, frozen sections or cultured cells. Accommodates up to eight collection tubes and three slides. Both brightfield and fluorescence options are available.

Stereo

StEREO Lumar V.12 microscope for 3D observation and imaging of small objects. Brightfield, darkfield, DIC and fluorescence (DAPI, FITC and TRITC). Zeiss HRm monochrome camera and AxioVision software. Applications include *Drosophila* and angiogenesis studies.



Microscopy



Scanning Systems

Ariol Scanning System: automated imaging of up to 8 slides and quantification of immunohistochemical staining or immunofluorescence. Collection and analysis of data from tissue microarrays or sections. Nuclear, cytoplasmic and membranous markers can be distinguished and positive staining can be quantified in terms of intensity, size and number of positive events. Vessel density and number analysed for angiogenesis studies.

Pannoramic 250 High Throughput Scanner: 250 slide capacity and produces high quality brightfield images with 43X magnification. Slides can be scanned directly to the server and securely accessed from anywhere in the world. For acquisition of entire tissue sections or microarrays and subsequent analysis using Densito Quant, Nuclear Quant and Membrane Quant modules.

Live Imaging

DeltaVision Live Imaging System: high resolution system comprising an **Olympus IX71** inverted research microscope and **CoolSNAP HQ2** camera. Equipped with fluorescence for imaging blue/ green red/ far-red and live cell (CFP/YFP and GFP/mCherry).

Zeiss Axiovert 200M Time Lapse System comprising a fluorescence microscope, an AxioCam MRc camera and a motorised stage. Brightfield and fluorescence detection (green, red and far-red) on live cells. For sequential imaging of multiple, pre-defined locations in a culture plate or on slides over a period of time using the Mark & Find module of AxioVision software.

Epifluorescence

- For wide-field image capture of fluorescent and pathology stained samples.

<http://www.bci.qmul.ac.uk/research/lab-facilities/microscopy>