Dear colleagues,

UMCOR has approved our laser microscopes as microscopy facility, and therefore we would like to make our instruments available to the community of the G&F faculty.

Three instruments are available: two confocal microscopes type LSM800 from Zeiss, and one light sheet fluorescence microscope (LSFM) type Z1 also from Zeiss.

These are the specifications per instrument:

1. Confocal microscope LSM800, owned by research group REGE
   1. Lasers: 405, 488, 560, 640
   2. 3 detectors: 2 GaAsP PMTs, one Airyscan detector for superresolution and increased sensitivity (4-8x).
   3. Objectives :  
      EC Plan Neofluar 10x/0.3 NA;  
      EC Plan Neofluar 20x/0.5 NA;  
      Plan Apochromat 20x/0.8 NA;  
      LD C-Apochromat 40x/ 1.1 NA water immersion;  
      Plan Apochromat 63x/1.4 oil
   4. Axiocam 503 mono camera for widefield mode
   5. Tokai Hit incubator. Multiwell plates, Labtek, 35 and 50 mm dishes can be used, plus your special 4 well dishes.
   6. Motorized stage: multi position and tiles imaging possible.
   7. LED 780 nm excitation combined with proper filter set for imaging NIR fluorophores such as ICG.
   8. Software options: Multi channel fluorescence, z-stack, time lapse microscopy , superresolution microscopy via Airyscan, time lapse microscopy, Tiles and positions, Experiment designer for complex experiments, spectral imaging with linear unmixing, image analysis.
2. Confocal microscope LSM800, owned by research group FOBI
   1. Lasers: 405, 488, 560, 640
   2. 2 detectors, 2 multi alkali (MA) PMTs.
   3. Objectives :  
      EC Plan Neofluar 20x/0.5 NA;  
      Plan Apochromat 40x/1.3  NA oil ;  
      Plan Apochromat 63x/1.4 oil
   4. Tokai Hit incubator. Multiwell plates, Labtek, 35 and 50 mm dishes can be used, plus your special 4 well dishes.
   5. Software options: Multi channel fluorescence, z-stack, time lapse microscopy, spectral imaging with linear unmixing, image analysis.
3. LSFM type Z1, owned by the Hercules grant Consortium
   1. Lasers: 405, 488, 560, 640
   2. 1 detector- PCO Edge very sensitive and fast CMOS camera
   3. Objectives :  
      Illumination- 2 5x objectives and 2 10x objectives.  
      Detection objectives: EC Plan Neofluar 5x/ 0.16 , Water Plan Apochromat 10x/0.5 NA; Water Plan -Apochromat 20x/ 1.0 NA for living samples; Water Plan Neofluar 20x/ 1.0 NA for cleared 1.45 refractive index samples
   4. Incubation: temperature control, CO2, and O2 control
   5. Software options: Multi channel fluorescence, z-stack, time lapse microscopy, Multiview imaging, and tiles imaging. Offline workstation with powerful Arivis for data processing, 36Tb capacity.

Brecht Ghequiere is a trained technician dedicated to the facility who will assist you in the use of the instruments. He will also be responsible for keeping the logbook and preparing the invoices.

Starting from 1 September 2019, we will charge 35€/h for the LSM800 models, and 45€ for the LSFM (35€ for the members of the Hercules consortium).

If you are interested in using one of the instruments, you can contact Brecht (email: brecht.ghesquiere@vub.be) so that he can send you a link to the agenda for checking availability.

Best wishes

Karen Sermon