**Imaging Suite: One Stop Microscopy Shop**

Located on the 4th. floor in the new translational research building(TRB) at A4-110, BCCHRI’s Imaging Suite is designed to provide dark workspaces for precise and sensitive microscopy imaging techniques. The Imaging Core Lab has bundled four powerful microscopes and one image data analysis computer to provide BCCHRI investigators with a centralized imaging shop.

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| 1. The innermost suite A4-110C houses two unique microscopy stations: |
| * **Leica SP5 II Laser Scanning Confocal Microscope** * **Leica SP8 Laser Scanning Confocal Microscope** |
| **SP5** comes with two HyD detectors, AOBS, and auto Galvo-stage. It is best for 5D fluorescence spectral imaging with spectral separation, high spatial resolution, fluorescence sensibility, and signal/background contrast. Special imaging methods of FRET SE, FRET AP and FRAP are also included.   1. The middle suite A4-110B houses the popular **Olympus BX61 Fluorescence Microscope**. It is best for routine fluorescence or bright field imaging and multi-site multi-channel automatic tile imaging and real time stitching. The workstation (8 core 16HT, 32G ECC SDRAM) can also be used for fast image analysis, using licensed software of **Leica LAS AF** offline, **Image** [**Pro Analyzer 6**](http://bible.logos.com/passage/ESV/Pro%206)**.2** and **Olympus cellSens**, and free software of ImageJ(Fiji).      1. The closet also houses image analysis PC with **Image** [**Pro 6**](http://bible.logos.com/passage/ESV/Pro%206)**.2** (also installable through BCCHRI network), and free software of ImageJ(Fiji) and **Olyvia**.   The table below is a guide to choice the proper microscope, where more + sign means better performance, and – sign means not fit. |

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| **Microscope** | **Fluorescence** | **HE, IHC** | **3D, Z-stack** | **Live cell, T-lapse** |
| **SP5 II Confocal** | **+++++** | **-** | **+++++** | **+++** |
| **BX61** | **+++** | **+++++** | **+** | **+** |

In collaboration with CMMT, we also provide imaging service using:

**Leica SP8X STED White Laser Confocal Microscope** (located at room 2021, CMMT)

**SP8X STED** comes with White Light Laser, three HyD detectors, AOBS, and auto Galvo-stage. It is best for super-resolution (sub-50 nm) STED Confocal imaging, complete spectral (both excitation wavelength and emission band) and light gating imaging, and live cell imaging. **SP8X** has a small on-stage environmental chamber allowing temperature and flowing moisturized CO2 controls, which is best for live cell time lapse imaging on slide or dish.

The Huygens Professional Deconvolution Software Package restores Confocal images back to original objects.

To receive training or book time, visit the Imaging Suite at room A4-110, email Dr. Jingsong Wang [jinwang@cfri.ca](mailto:jinwang@cfri.ca) or call 604-875-2000 ext. 7564.

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