

Instrumentation available in the Microscopy Core Facility

## Confocal Microscopy



### Confocal SP8

The LEICA SP8 confocal microscope is a straight microscope equipped with 3 PMTs (Photo-Multiplier Tubes or photo multiplier tubes) of which two are used for fluorescence and the other detector for transmitted light and one (HyD) hybrid detector (using another principle to detect photons whose sensitivity is increased compared to standard PMTs). The fluorescence emission signals are refracted by a prism and then directed to the detectors. This principle allows a very precise adjustment to separate the signals according to their emission wavelength. This microscope is also equipped with a motorized XYZ stage and includes 4 laser lines for excitation (405, 488, 555 and 638 nm).



### Confocal LSM 700

The confocal microscope LSM700 of the company ZEISS is an inverted microscope equipped with 3 PMT (Photo-Multiplier Tubes or photo multiplier tubes) of which two are used for fluorescence and the other detector for transmitted light. The signals are separated by a variable dichroic so that the part of the signal whose wavelengths are longer than a given value goes to one PMT while those that are shorter go to the other PMT. This microscope is also equipped with a motorized XYZ stage and includes 4 laser lines for excitation (405, 488, 555 and 638 nm).



### Confocal LSM 710

The confocal microscope LSM710 of the company ZEISS is an inverted microscope equipped with 4 PMTs (Photo-Multiplier Tubes or photo multiplier tubes) of which three are used for fluorescence and the other detector for transmitted light. The signals are separated by a diffraction grating before being spatially separated by prisms and caches before being directed towards the PMTs. This microscope is also equipped with a motorized XYZ stage and includes 4 laser lines for excitation (405, 488, 555 and 638 nm).



### Spinning disk Confocal (rotary disc confocal)

The confocal rotary disc microscope from ZEISS is an inverted microscope equipped with a Yokogawa CSU-1 module. This microscope is also equipped with a motorized XYZ stage and an incubator to maintain a stable physiological environment at controlled temperature, percentage of CO<sub>2</sub> and O<sub>2</sub>. There are 4 laser lines for excitation (405, 488, 561 and 639 nm). The system also allows the excitation to be manipulated to perform transitions or photonic damage.