

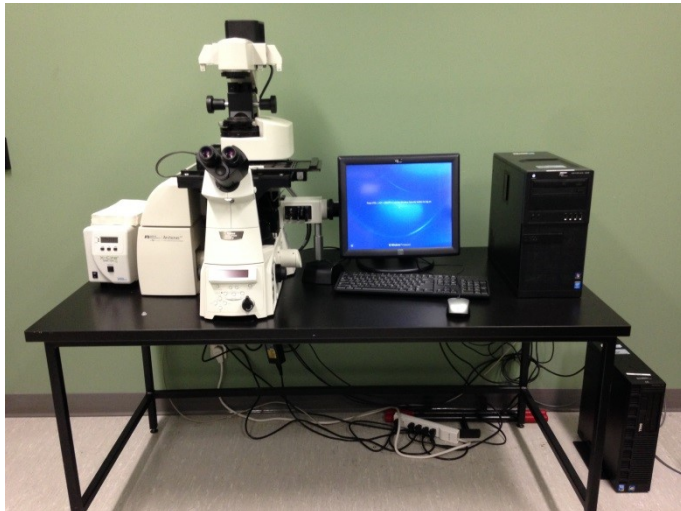
Instrumentation available in the Microscopy Core Facility

Highly Specialized Techniques



Optical Tomograph

The optical tomograph from BiOPTronics allows a three-dimensional reconstruction of a sample size ranging from 4 to 20 mm with a maximum resolution of 3.9 μm . The system can acquire volumes by transmitted light (monochromatic) and also by fluorescence.



Laser Dissecting Microscope

The Arcturus laser dissecting microscope is a microscope whose stand is an inverted microscope of the Nikon company. This microscope is equipped with software to draw a given region and then use a UV laser to cut the sample on the drawn line to an accuracy of less than one micrometer ($< 1 \mu\text{m}$). The system first places a small cylindrical cap on the sample. Thereafter, an infrared laser beam melts the plastic material of the stopper to fix itself on the sample so that by lifting the stopper, the part of tissues or cells selected are stuck to the stopper and thus separated from the sample.



MetaXpress High-Speed Imaging

The high throughput MetaXpress imaging microscope from Molecular Devices is equipped with a motorized stage and an infrared probe to automatically determine the focusing position. This microscope can be adapted to all types of 96-well plates. The system mainly acquires fluorescence images. These images are accumulated in a database and can then be analyzed in a fully automated manner to perform cell counts, intensity analyses. MetaXpress software can distinguish nuclei from cytoplasm when specific cellular markers are present.