

Biolmaging Facility

- The facility has reopened. Masks are no longer required
- Reserving equipment at <http://bookit.hunter.cuny.edu> prior to use is **mandatory**



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National Institute
on Minority Health
and Health Disparities

Description of the Facility

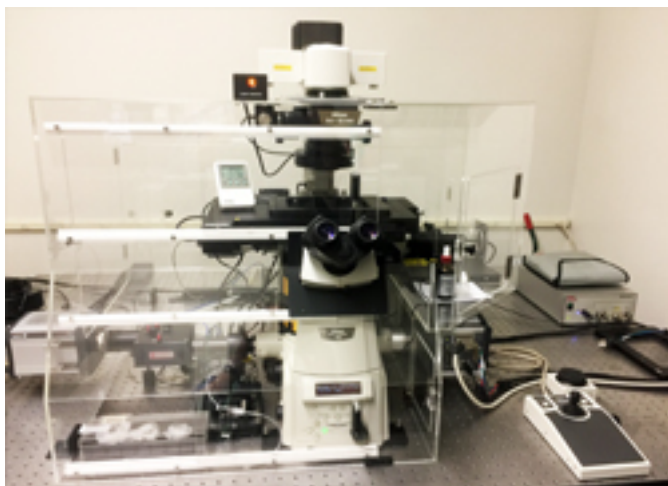
Background Overview

The BioImaging Facility at Hunter College is centered in a multi-room facility of 1024 sq. ft. located in the Biological Sciences Department on the 8th Floor of Hunter North building. A satellite facility also includes a number of instruments on the 4th Floor of the Belfer Research building (at 69th Street and York Ave). Faculty and students have access to a broad spectrum of instruments, ranging from simple white light wide-field microscopes to fluorescent multidimensional super-resolution and confocal imaging systems. The Faculty supervisor and Scientific Director is Dr. Diana P. Bratu. Dr. Lloyd Williams is the Managing Director of the facility. The facility staff has expertise in many areas of microscopy including the laser scanning confocal microscopy, super-resolution microscopy, two-photon microscopy. They are also

familiar with many image analysis software packages, including, Imaris, Volocity, Autoquant, MetaMorph, and NIS-Elements. Detailed descriptions of the equipment in the facility is given below. All equipment is located at Rm 826 HN or at the 4th floor of the Belfer Research Building where designated

To book time on any of the instruments go to <http://bookit.hunter.cuny.edu>

Instruments

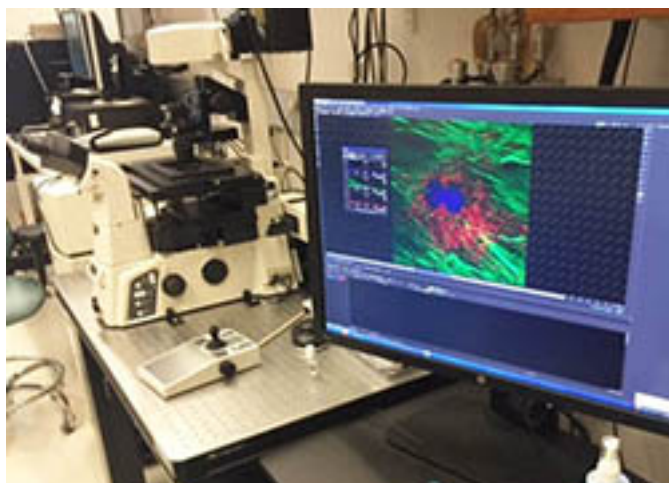


Nikon Eclipse Ti, TIRF/SIM

The Nikon TIRF SIM microscope allows the users to do both Total Internal Reflection Microscopy and

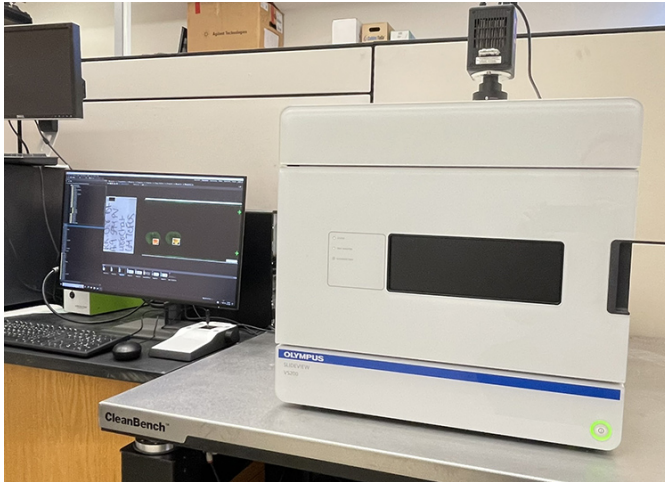
This machine is in 826HN

The charge for this instrument is \$20/hr.



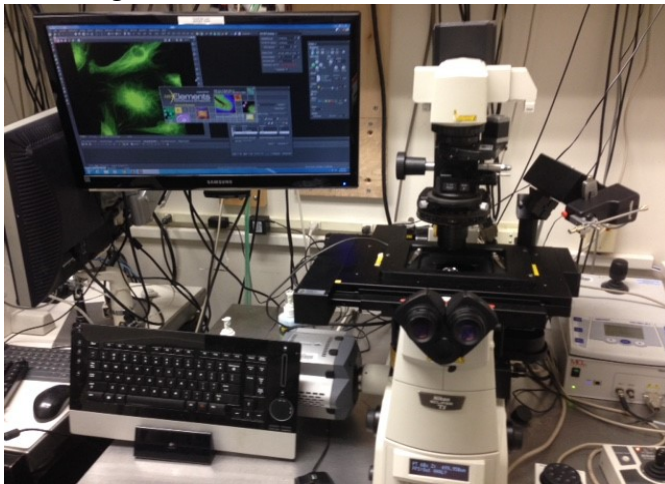
Belfer Nikon A1 Confocal Microscope

The Nikon A1 Confocal microscope is Nikon's powerful fully-automated confocal imaging system, capable of high-resolution 3D imaging. The charge for this instrument is \$20/hr.



Olympus VS200 Slide Scanner

The SLIDEVIEW™ VS200 research slide scanner enables you to capture high-resolution images of research slides. The charge for this instrument is \$20/hr.

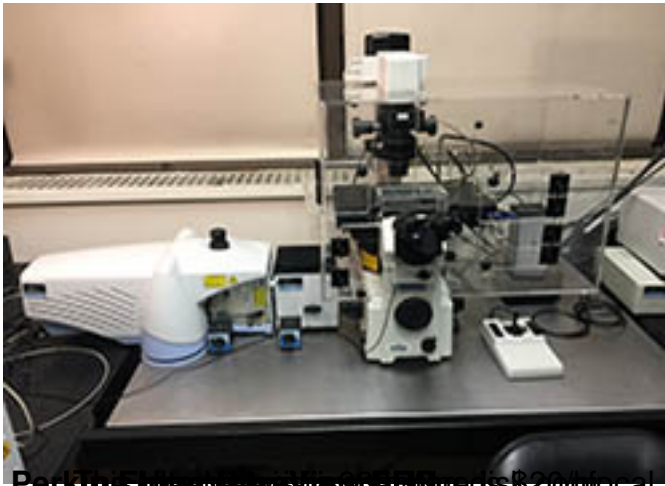


Nikon Eclipse Ti Mosaic System

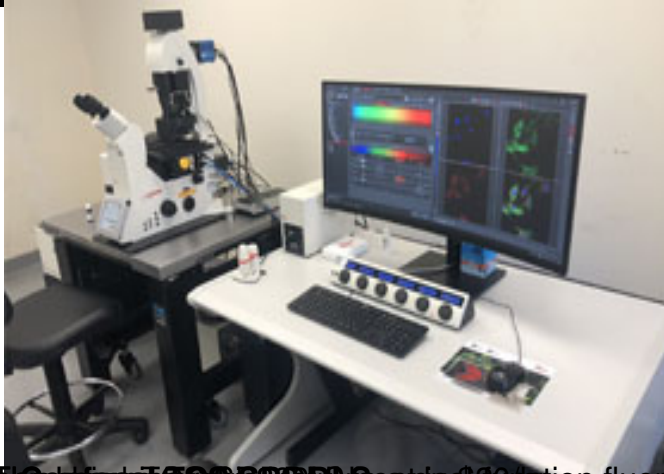
The Nikon Eclipse Ti scope is a wide-field fluorescent microscope. It is equipped with Andor iXon EMCCD camera. The charge for this instrument is \$15/hr.

This machine is in 826HN

The charge for this instrument is \$15/hr.



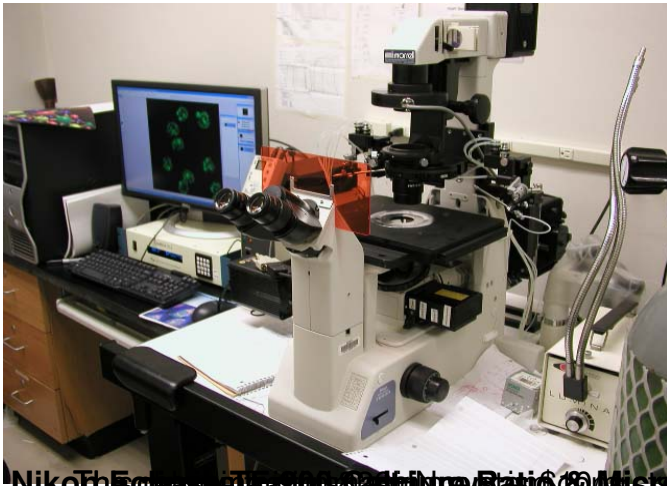
PerkinElmer Lambda 900 Raman is a Raman microscope equipped with five laser lines, which allow vis



Leica TCS SP5 DRC is a confocal microscope that can be used as a convent



Leica SP5-AOBS is a confocal microscope that can do measurements of transmitted l



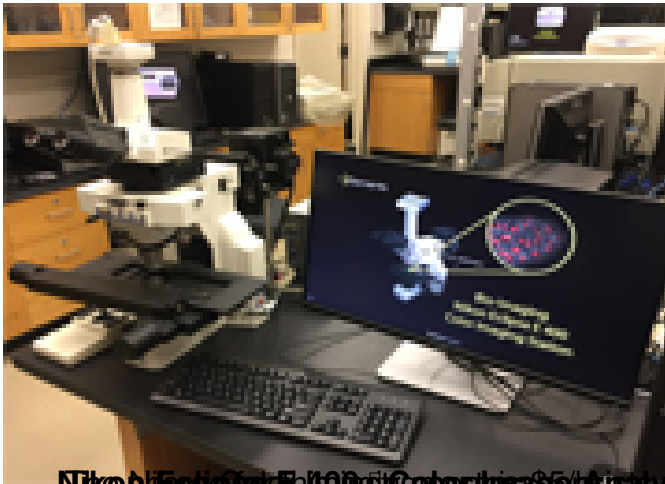
Nikon Eclipse TE 200 inverted epifluorescence microscope



Nikon DigiSight camera and Nikon Eclipse TE 200 inverted epifluorescence microscope



JEOL JEM-100C/CX transmission electron microscope



□ Nikon Eclipse E400 upright microscope, and Nikon D5100 camera system



□ Nikon D5100 camera system, Bitplane's Imaris Imaging software installed



□ Nikon NIS-Elements imaging software installed



AutoQuant 1280 2D Multi-Channel Fluorescence Image Analysis Station



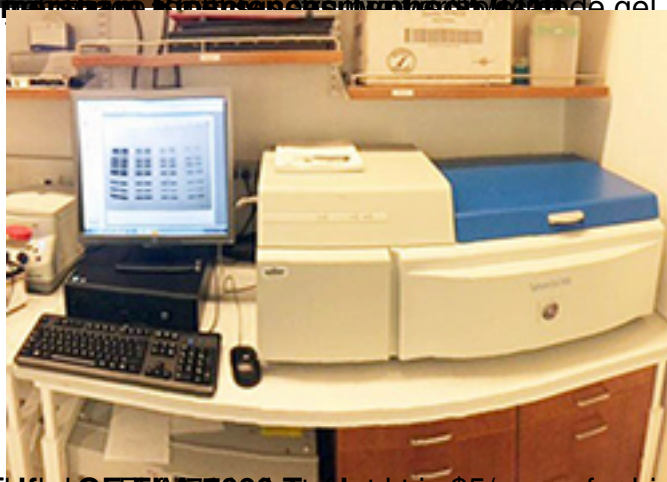
EM 1024 2D Multi-Channel Fluorescence Image Analysis Station



Genie EM Microplate Spectrofluorometer



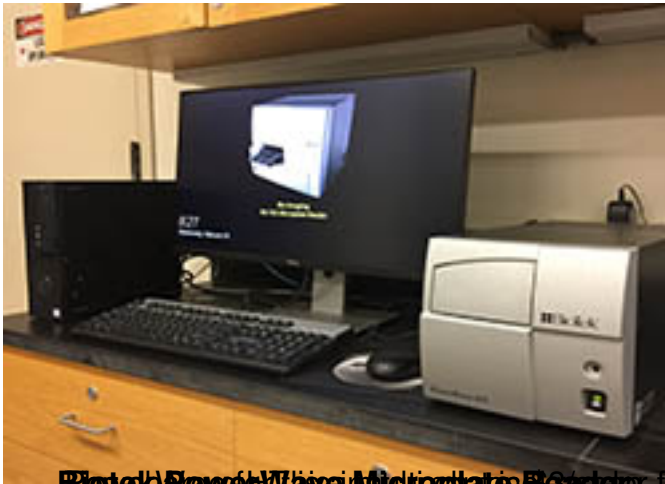
Amersham Biosciences Typhoon 9410 multi-channel gel imager. The Typhoon 9410 unites the ability to detect



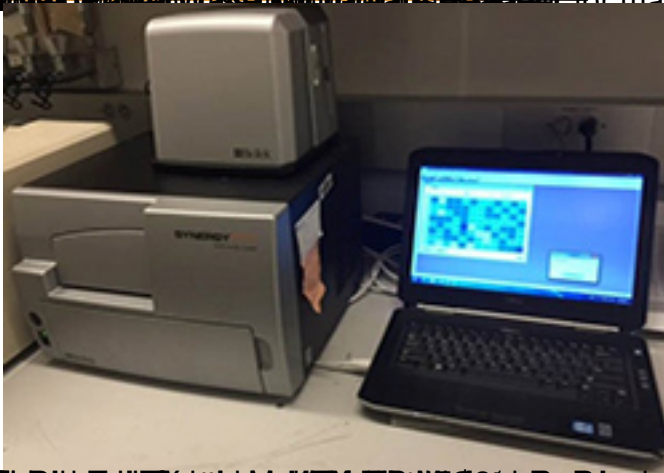
Beckman Coulter DTX 800 Fluorescence Reader for biomolecular imaging applications including sensitive a



Olysys Infinite 2100 multi-channel plate reader. Methods of analyzing western blots, chemiluminescence, and flu



Biopac MPX-100 Microplate Reader for maximum speed in both 96- and 384-well plate formats



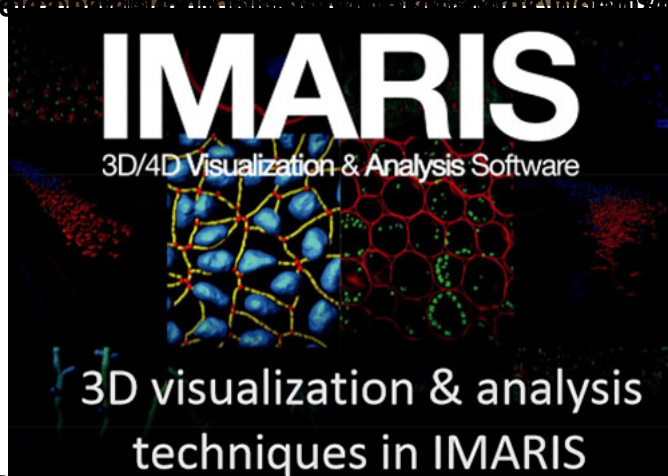
Biopac MPX-100 Microplate Reader for making: absorbance, fluorescence, luminescence



GloMax 96 Microplate Luminometer is a state-of-the-art Microplate Luminometer



Fig. 1. Confocal microscope (Leica TCS SP5) used for 3D visualization and analysis of cells. The Bio-Imaging Facility is located in 826 HN (Room Beller BB 479).



Fluorescence microscopy is a technique used to study the structure and function of cells. It involves the use of fluorescent dyes or proteins that emit light when excited by a specific wavelength of light. The light is then collected by a lens and focused onto a detector, which produces a 2D image of the sample. In 3D visualization, the data is processed to create a 3D model of the sample, allowing for a more detailed understanding of its structure and function. The Bio-Imaging Facility is equipped with a confocal microscope, which is a type of microscope that uses a series of pinholes to focus light on a specific point in the sample, allowing for high-resolution 3D imaging. The facility is located in 826 HN (Room Beller BB 479).