

Quantitative Molecular Imaging Facility

Location: MCW Biomedical Engineering Department (BME) TBRC 2nd floor

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Overview

The Quantitative Molecular Imaging Facility is an interdepartmental research service unit located in the Biomedical Engineering Department. The facility includes a Leica TCS SP5 Confocal Microscope System combined with fluorescence correlation spectroscopy (FCS) and multi-photon laser. . The system is also capable of quantitatively analyzing molecular interactions in live cells using FCS as well as fluorescence energy transfer (FRET). Other specific features of the instrument include:

1. Ultra-high speed real time confocal imaging (250 frames/sec.)
2. Multi-photon laser scanning
3. Five channels detection with an Acousto-Optical Beam Splitter (AOBS)
4. Advanced multi-color restoration and spectral un-mixing capabilities
5. Fluorescence recovery after photo-bleaching (FRAP)

The facility will also provide training for operation to investigators and research personnel. The facility operates on a fee-for-service basis and is open to faculty of the Medical College of Wisconsin and outside researchers.

| Equipment/Software | Accessibility |
|--|--------------------------------------|
| Leica TCS SP5 Confocal Microscope System | Use is available only after training |
| | |

Hours: 24/7

Common users of the facility: Physiology; Neuroscience Center; Microbiology; Anatomy & Cellular Biology; Genomic Sciences and Precision Medicine Center

Rate: Fee-for-service (\$25/hour)