Resource Summary Report

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Harvard PCMM Optical Microscopy Core

RRID:SCR_009854

Type: Tool

Proper Citation

Harvard PCMM Optical Microscopy Core (RRID:SCR_009854)

Resource Information

URL: http://harvard.eagle-i.net/i/0000012e-9c1a-059b-55da-381e80000000

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Description: Core facility that provides the following services: Microscope access service, Microscope training service. Confocal and multiphoton are modern fluorescence techniques in microscopy for generating optical sections from live or fixed biological specimens. In general, both techniques employ a point scanning and point detecting design. The confocal microscope achieves point detection by using a confocal pinhole to block off out-of-focus emission from the specimen. The multiphoton microscope, on the other hand, generates intrinsic point emission directly from the in-focus spot, thereby eliminating the need for a confocal pinhole. Subsequent scanning of the entire field of view results in an optical section. Computer reconstruction of serial optical sections, collected at consecutive axial (z) positions, can reveal the spatial localization of cells and tissues (sometime subcellular molecules) in 3D. The ability to see biochemical processes in live cells, in real time, sheds light on the vastly complex molecular world of cells and may allow IDI scientists to identify new targets for drugs that will treat exposure to dangerous toxins and bacteria as well as fight a wide variety of diseases.

Resource Type: access service resource, core facility, service resource

Keywords: confocal microscopy

Funding:

Resource Name: Harvard PCMM Optical Microscopy Core

Resource ID: SCR_009854

Alternate IDs: nlx_156323

Alternate URLs: http://www.idi.harvard.edu/about_us/core_facilities/optical_microscopy/

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Ratings and Alerts

No rating or validation information has been found for Harvard PCMM Optical Microscopy Core.

No alerts have been found for Harvard PCMM Optical Microscopy Core.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We have not found any literature mentions for this resource.