

What you can do in the . . .

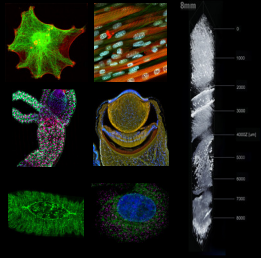
Light Microscopy Core Facility

DUKE UNIVERSITY AND DUKE UNIVERSITY MEDICAL CENTER

Image . . .

A great range of samples:

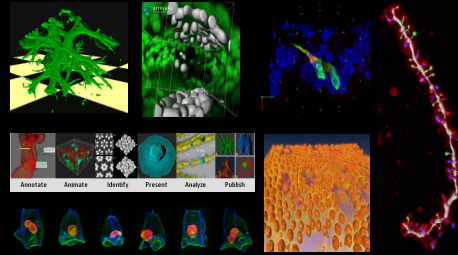
- ✓ Fixed or live
- ✓ Slides, culture dishes, intravital imaging
- ✓ Thin or thick - *Scale* optically cleared tissues allow imaging depth up to 8 mm
- ✓ Single molecules to cm scale structures
- ✓ Nanosecond to multiday events
- ✓ Range of λ - UV to NIR



Visualize, process and analyze . . .

Visualize 3D Images

Imaris | Volocity | MetaMorph | Huygens



Dedicated staff can help you whether you have never seen a microscope before or if your middle name is microscopy:

- Training and advice for systems tailored to your needs
- Advice on experimental strategies and sample preparation
- Ongoing support and further training as you use the systems
- Online tutorials and guidelines

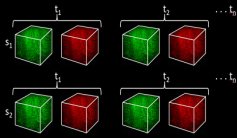
Microscopy and image analysis classes

- Graduate classes: BIO725, BIO727 and a CMB551 module
- Occasional introductory short-courses for all

Using a variety of modalities/techniques:

All standard fluorescence-based optical sectioning methods

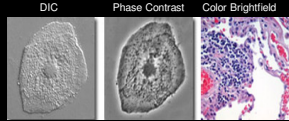
Multi-dimensional acquisition:
3D z-stacks, multi-channel, time-lapse at multiple locations



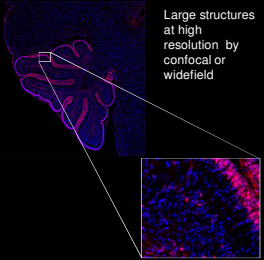
Reflection



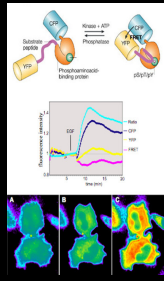
Transmitted Light Imaging



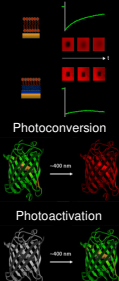
Tiled Images



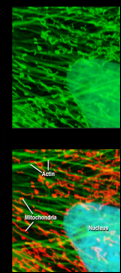
Functions



Dynamics

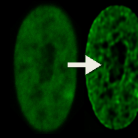


Spectral Imaging and Unmixing

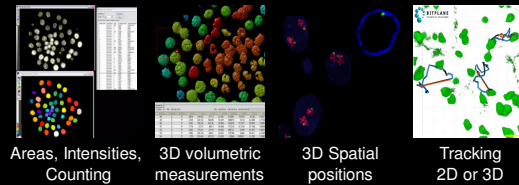


Deconvolve Images

- DeltaVision deconvolution system and workstation
- Huygens SVI deconvolution software – accepts images from nearly all scopes, LMCF's and yours



Extract quantitative data from images



Learn . . .

Use . . .

- Trained users can access the scopes 24 hr, 365 days
- Online reservations for all systems
- Convenient, nearby locations
- Trial samples of common reagents
- Low fees, bulk discounts thanks to support from:



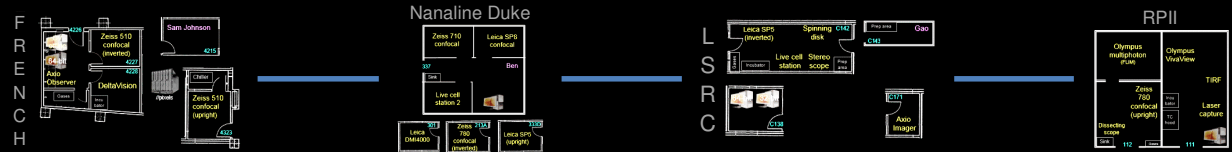
Suggest . . .

- What new equipment or capabilities do you want?
- What level of involvement is best for you?
- How can we improve our services?

Discover more . . .

<http://microscopy.duke.edu>

By using these systems . . .



Multi-photon	TCSPC	Confocal Systems						Live Cell Systems						Fluorescence Microscopes						Workstations	Three Humans	
Olympus FV1000	PicoQuant	Zeiss 510 Inverted	Zeiss 510 Upright	Zeiss 780 Upright	Leica SP5 Upright	Leica SP8 Upright	Zeiss 710 Inverted	Zeiss 780 Inverted	Leica SP5 Inverted	Andor XD Spinning Disk	Olympus VivaView	DeltaVision	TIRF	Live Cell Station 1	Live Cell Station 2	Zeiss Laser Capture	Axio Observer	Axio Imager	Stereo-scope	Leica DMI4000	6 High-end Computers	Sam, Gao, and Ben