

Microscopy Core Facility

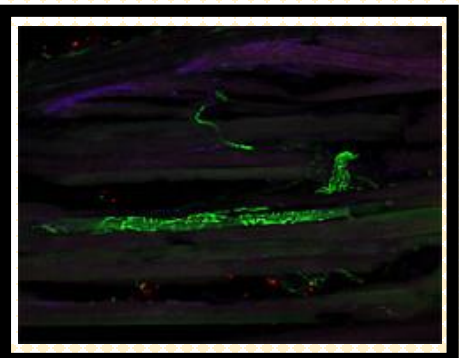
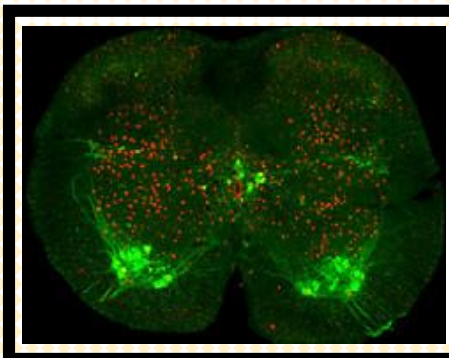
Neuroscience Engineering
Collaboration Building

Rm: 294 & 298

Core Personnel

Hanna Gabriel
Core Manager
(937) 775-3019

David Ladle
Core Director
(937) 775-4692



Microscopy Core Facility

Equipment

Olympus FV1000

- Six excitation lines (405, 488, 458, 511, 568, 633)
- Four fluorescence detection lines (two spectral units and two based on optical filters)
- One detector for transmitted bright field (New in October 2006)

Olympus FV300

- Two excitation lines (488, 568)
- Two detectors that can be switched for different combinations of dual fluorescence or fluorescence and transmitted light simultaneous detection

Olympus 2-Photon

- Two-photon excitation is obtained with a MaiTai pulsed laser (range 700-1040 nm)
- Single photon excitation is also possible (488, 458, 511, 559, 633 lines).
- Detection can be accomplished through four non-descan detectors, three confocal detectors and one transmitted light detector
- New in September 2009

Electron Microscope

- The phillips 208S is a 100kv transmission electron microscope with excellent contrast and resolution with properly prepared specimens. The instrument, besides producing data-rich film output, is also coupled to AMT xr611 camera that permits high-resolution digital imaging
- The core provides technical help for the use of the microscope (inserting and withdrawing specimens, processing any EM negatives). Thus, usage of this instrument is always implemented with assistance by authorized core personnel.

Olympus Epi Fluorescence Spot Scope with RT Color Camera

Fluorescent Dissecting Scope with BW/Color Camera

- The Olympus Mvx10 stereomicroscope provides fluorescent view and imaging at the macro level. The optics are listed below:
- 0.63x MVX Plan Apochromat Lens has a high numerical aperture of 0.15
- 1x MVX Plan Apochromat Lens has a numerical aperture of 0.25
- 2x MVX Plan Apochromat Lens – A unique and specially designed high-numerical aperture lens of 0.50 NA that features a correction-collar for correcting aberrations when imaging through plastic vessels or up to 5mm of water. This 2x PF (part of the parfocal series) objective provides superior resolution of over 1500 lines/mm

Review Computer 1

This review station has the following software:

- Image Pro Premier 9.1
- Olympus Fluoview 10 (Full Version)
- Sigma State/Plot v9
- CorelDRAW Graphics SuiteX6
- Microsoft Office 2013
- Adobe Acrobat Professional 11
- Matlab 2015
- SPSS
- Compustat
- Adobe Creative Cloud-Design Suite
- Statistica
- Spike v2
- Clampfit v5.13
- Spot Advance V9

Review Computer 2

This review stations has the following software:

- Image Pro Premier 9.1
- Olympus Fluoview 10 (Full Version)
- Adobe Acrobat Professional 11
- Matlab 2015
- SPSS
- Compustat
- Adobe Creative Cloud-Design Suite
- ClampFit v5.13
- Axon pCLAMP 10.2
- CorelDRAW Graphics SuiteX6
- Microsoft Office 2013

Review Computer 3

This review station has the following software:

- Image Pro 5.1
- Olympus Fluoview 10 (Full Version)
- CorelDRAW Graphics SuiteX6
- Adobe Acrobat Professional 11
- Matlab 2015
- SPSS
- Compustat
- Adobe Creative Cloud-Design Suite
- Spot Advance v9
- Microsoft Office 2013

HM550 Cryostat

Vibratome

Ultramicrotome MT6000

Ultramicrotome MT5000

Freezing Sliding Microtome

Stereo Investigator/ Neurolucida/ Huygens (Deconvolution)

Core Training

Request training on any
equipment using iLab:
My.iLabsolutions.com

***Only authorized and trained Users are allowed to use
equipment in the Core Facility***

Trained Users are permitted to utilize equipment during normal operating hours:

Monday – Friday 9:00 am – 5:00 pm

3-Step Process:

1. Initial Training –

Meet 1:1 with Core Personnel to gain basic understanding of theory and techniques necessary to properly operate equipment safely and effectively.

2. 1st Supervised Session –

Learn basic troubleshooting and how to optimize your results

3. 2nd Supervised Session –

It's your turn to take the lead! Expand upon your knowledge of operating your equipment of interest, while supervised by Core Personnel

Earn 24 hour Access:

Every User has the opportunity to qualify for 24 hour access to the Microscopy Core Facility

- Log at least 20 hours of supervised usage during normal operating hours
- Demonstrate understanding of basic troubleshooting and safety procedures
- Good track record of following rules and regulations of MCF


****Normal scheduling rules apply. Approval for 24 hour access is at the sole discretion of Core Personnel****

Microscopy Core Facility

Scheduling Guidelines:

First come, first serve scheduling starts 12am Sunday

1. Time Slots are 4-hour increments or less
2. **Each laboratory** can reserve a maximum of **two 4-hour** time slots each coming week up to **2 full weeks in advance** (**Sunday** marks the start of each week)
3. Starting every **Sunday at 12:00 am**, available time remaining on schedule of corresponding week becomes **first come, first serve**
4. Delays in using the equipment **over 15 min** of scheduled time **without notification** to the core manager, may result in **loss of scheduled time** at discretion of Core Personnel
5. If you are unable to use your reserved time, remove your reservation from iLab or contact Core Manager ASAP
6. Be **PROACTIVE** about scheduling! Please let the Core Manager (Hanna) know if you are having trouble getting time on the equipment
Hanna.Gabriel@wright.edu; (937) 775-3019
7. Those individuals with **24hr access** to the MCF will gain an additional allowance of **up to 8 hours** of advanced scheduling **after normal operating hours**.
Standard open scheduling rules still apply.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2	3	4  TODAY	5	6	7
8 Open Scheduling	9	10 4 hours	11	12 4 hours	13	14
15 Open Scheduling	16	17	18 4 hours	19	20 4 hours	21
22	23	24	25	26	27	28
29	30	31				

Microscopy Core Facility

Register for iLab

Step 1: Visit the Microscopy Core Website at
medicine.wright.edu/mcf

Step 2: Click on iLab Registration link

CLICK HERE



The screenshot shows the website for the Wright State University Microscopy Core Facilities. The header includes the university name and the Boonshoft School of Medicine. A navigation menu lists various departments. The main content area is titled 'Microscopy Core Facilities' and has tabs for 'Overview', 'Equipment', and 'Policies & Fees'. The 'Overview' tab is active, showing a description of the MCF and a note about user requirements. A 'Calendars' section lists equipment like 'FV1000 Confocal', 'FV300 Confocal', '2-Photon Confocal', 'Electron Microscope', and 'Spot Scope'. A red arrow points to the 'iLab Registration' link, which is circled in red. Below the text are four microscopy images and a 'View more photos' link.

Step 3: Select your lab (PI) and follow the prompts to complete your registration

Microscopy Core Facility Scheduling/Request training on iLab

Step 1: Log into your iLab account
www.my.ilabsolutions.com

Step 2: Find the equipment you want to reserve

The screenshot displays the Microscopy Core Facility (MCF) interface on iLab. The page title is "Microscopy Core Facility (MCF)" and it is associated with the Boonshoft School of Medicine at Wright State University. A navigation menu includes "About Our Core", "Schedule Equipment", "Request Services", "View My Requests", "Contact Us", and "Reservations". A yellow alert banner states: "Alert! You're browsing this page in 'Customer Test Mode'... Ready to [turn it off?](#)". Below the alert, a section titled "Schedule Equipment/Resources" contains a warning: "All users have to be trained and approved by core personnel before being able to use equipment unsupervised. All confocal microscopes are upright and all set up for DIC-IR illumination. Click on equipment descriptions for more details about the individual microscope. The Histocore is a facility designed to provide equipment support for research faculty in tissue sectioning and staining. Please see the [Microscopy Regulations](#) for more information." The equipment list includes:

- MCF Support Hours (Core Manager) (Offline) - description pricing (1) - request training
- Olympus FV1000 - description pricing (1) - view schedule - request training
- Olympus FV300 - description pricing (1) - view schedule - request training
- Olympus 2-photon - description pricing (1) - view schedule - request training (circled in red)
- Electron Microscope - description pricing (1) - view schedule - request training
- Olympus Epi Fluorescence Spot Scope with RT color camera - description pricing (1) - view schedule
- Fluorescent Dissecting Scope with BW/Color Camera - description pricing (1) - view schedule
- HM 550 Cryostat (New) - description pricing - view schedule - request training

Step 3:

Select  to schedule time on equipment

Select  to request training on equipment

Microscopy Core Facility

Guidelines

****Only authorized and trained Users are allowed to use the Equipment in the Core Facility****

Normal operating hours:
9:00 am – 5:00 pm, Monday - Friday

❖ **Please save to guest or predestinated drive**

You can remove your files from the designated computer in the histology core. Please keep in mind that the guest drive is NOT backed up and should be treated as a transitional storage space from MCF computers to each labs individual storage system

❖ **The MCF is not responsible for data maintenance and/or data loss**

❖ **Please do not use USBs in any of the Microscopy core Computers**

This helps protect our computers from corruption

❖ **Do not save anything on the C drive of imaging computers.**

This includes the desktop!

❖ **All equipment must be cleaned and returned to proper positions with all personal belongings and trash removed or disposed.**

❖ **Scheduling rules must be followed at all times**

PLEASE REPORT ANY PROBLEMS IMMEDIATELY TO CORE PERSONNEL

Core Personnel

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Core Manager
(937) 775-3019

David Ladle
Core Director
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Microscopy Core Facility

2015 User Fees

Equipment	Rate
FV1000 (4 lasers: 405, 488, 568, 647)	\$15/hour
FV300 (2 lasers: 488, 568)	\$10/hour
2-Photon	\$20/hour
Electron Microscope – TEM	\$20/hour
Microscope Monthly Usage Fee (Includes Florescent Upright & Fluorescent Dissecting Scope)	\$10/Month
Histocore Monthly Usage Fee (Includes Cryostats, Ultramicrotomes, & Perfusion Lab)	\$10/Month
Review Station Monthly Fee (Fee is charged per user)	\$10/Month
Neurolucida/ Steroinvestigator/ Huygens (Deconvolution)	\$20/Month