

2015 UMB Current Electron Microscopy Techniques Workshop

Meeting agenda

TIME	PRESENTER	TITLE
5/28/2015 morning, HSFII Auditorium		
8:30-9:00	Registration/Breakfast	
9:00-10:00	Kent McDonald (UC Berkeley)	Mythbuster: The Electron Microscopy Episode
10:00-10:45	Kirk Czymmek (Zeiss Microscopy)	Workflows for Fluorescent Affinity Probes with Correlative Array Tomography
10:45-11:00	BREAK	
11:00-11:45	Peter Van de Plas (Aurion)	Immunogold/Silver staining: post and pre-embedding applications
12:00-1:00	LUNCH BREAK	
5/28/2015 afternoon, Core Imaging Facility		
1:00-2:00	1 st Demo station	
2:00-3:00	2 nd Demo station	
3:00-4:00	3 rd Demo station	
CMMS Spring Dinner, Gladhill Boardroom, UMB Health Sciences Library		
5:30-6:00	Drinks & Social	
6:00-7:00	Dinner	
7:00-7:40	Kent McDonald (UC Berkeley)	A History of Cryomethods for Biological Electron Microscopy
7:40-8:20	John Cumings (U Maryland)	In situ Electron Microscopy of Battery Nanomaterials
8:20-8:30	CMMS business	
5/29/2015 morning, HSFII Auditorium		
8:30-9:00	Breakfast	
9:00-9:15	Ru-ching Hsia (UMB)	Tokuyasu immunogold labeling using monoclonal antibodies
9:15-9:30	Shiliang (Stevens) Zhang (NIH/NIDA)	pre-embedding immunolabeling of rodent brain
9:30-9:45	Ron Petralia (NIH/NIDCD)	pre-embedding immunoperoxidase vs. gold techniques
9:45-10:00	Rick Powell (Nanoprobes)	gold and silver enhancement and troubleshoot
10:00-10:30	BREAK	
10:30-10:45	Ron Petralia (NIH/NIDCD)	Post-embedding immunogold labeling using freeze substitution of fixed tissue
10:45-11:00	Kunio Nagashima (NIH/NCI)	In situ post-embedding IEM for correlated microscopy
11:00-11:15	Peter Van de Plas (Aurion)	Immunogold silver staining: troubleshooting
11:15-12:00	Rick Powell (Nanoprobes)	Nanogold, Other EM Labels, and Alternatives to Antibody Labeling
12:00-1:00	LUNCH BREAK	
5/29/2015 afternoon, Core Imaging Facility		
1:00-2:00	4 th Demo station	
2:00-3:00	5 th Demo station	
3:00-4:00	6 th Demo station	

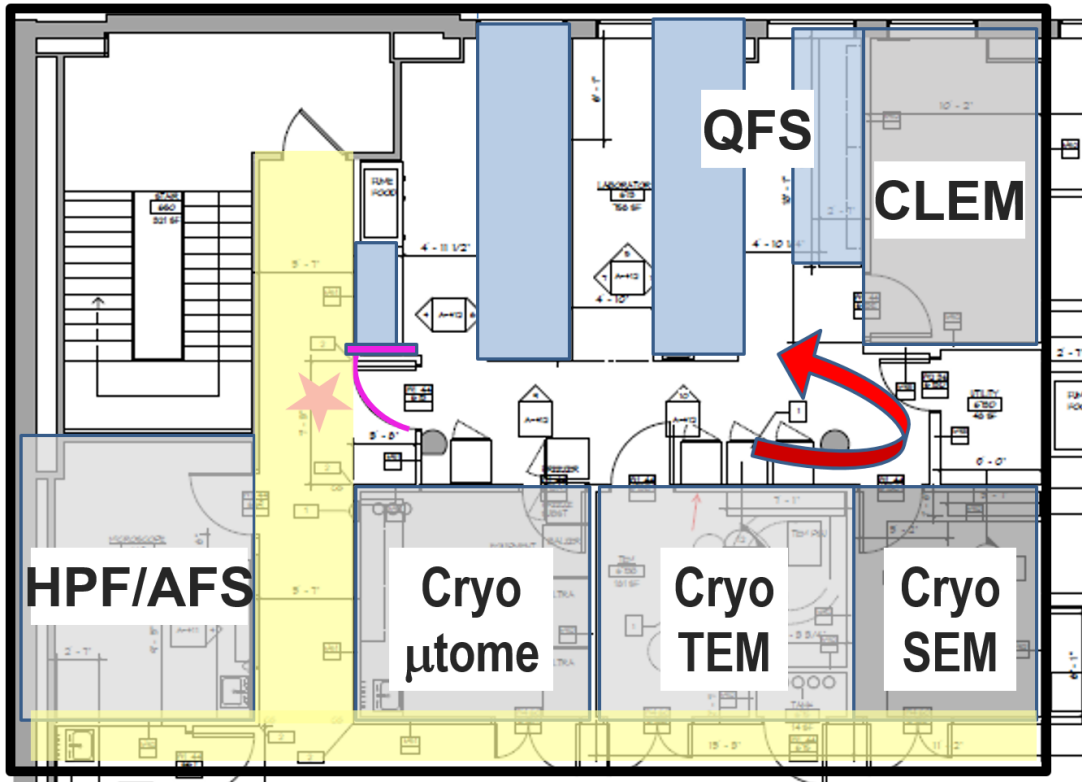
*: Participants will be divided by small groups and each group will follow a different demo station rotation sequence.

Instrument demonstration stations

Instrument	Demonstrator
High pressure freezer/AFS	Levi Felts (Leica) & Mark Kukucka (Leica)
Cryo-ultramicrotome	Carol Cooke (JHU) & Johanna Sotiris (UMB)
Cryo TEM/grid plunger	Ulrich Baxa (NIH/NCI), Sid Raman (UMB), Daniel Phillips (UMB)
Cryo SEM/cryo transfer chamber and holder	Rod Heu (Colgate Parlmer) & John Strong (UMB)
CorrSight CLEM presentation	Gregor Heiss (FEI) & Tim Maitland (FEI)
Quick freeze substitution	Kent McDonald (Berkeley) & Shiliang (Stevens) Zhang (NIH/NIDA)

Instrument demo station layout

Electron Microscopy Core Imaging Facility



Demo station Group Schedule

	HPF AFS	Cryo-ultra microtome	CryoTEM Grid Plunger	CryoSEM CryoChamber	CorrSight Presentation	Quick Freeze Substitution
1:00-2:00	Red	Orange	Purple	Green	Blue	Yellow
2:00-3:00	Yellow	Red	Orange	Purple	Green	Blue
3:00-4:00	Blue	Yellow	Red	Orange	Purple	Green
1:00-2:00	Green	Blue	Yellow	Red	Orange	Purple
2:00-3:00	Purple	Green	Blue	Yellow	Red	Orange
3:00-4:00	Orange	Purple	Green	Blue	Yellow	Red

Related UMB buildings and map



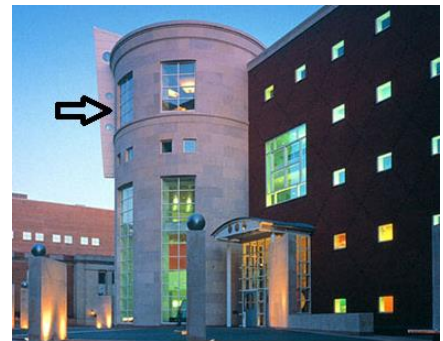
- HSF II auditorium, 20 Penn St
- EMCIF, Rm 696, Howard Hall, 650 W. Redwood St.
- Bressler Building, 650 W. Baltimore St.
- UMB SMC Campus Center, 621 W. Lombard St.
- Gladhill Boardroom, HSHL, 601 W. Lombard St, 5th Fl.
- Penn St garage, 120 S. Penn St.
- ▨ Pratt St garage, 646 W. Pratt St.



★ Visitor entrance for HSFII



Electron Microscopy Core Imaging Facility



Gladhill Boardroom

Walking Directions

From HSFII Auditorium to EMCIF (black route):

Exit HSF II and head toward Redwood St. Turn left on Redwood St and turn right on South Pine St. Enter Health Science Facility I building (HSFI), pass security guard and take elevator to your right to the 6th Floor. Follow the signs to EMCIF.

From EMCIF to Gladhill Boardroom (Red route):

Take HSFI elevators to ground floor, exit HSFI and turn left toward South Pine Street. Turn left on Redwood Street, turn right on Penn Street. Turn left on Lombard Street. The HS/HS Library is at the intersection of Lombard and Green Street. Enter the Library, and take elevators to the 5th floor.