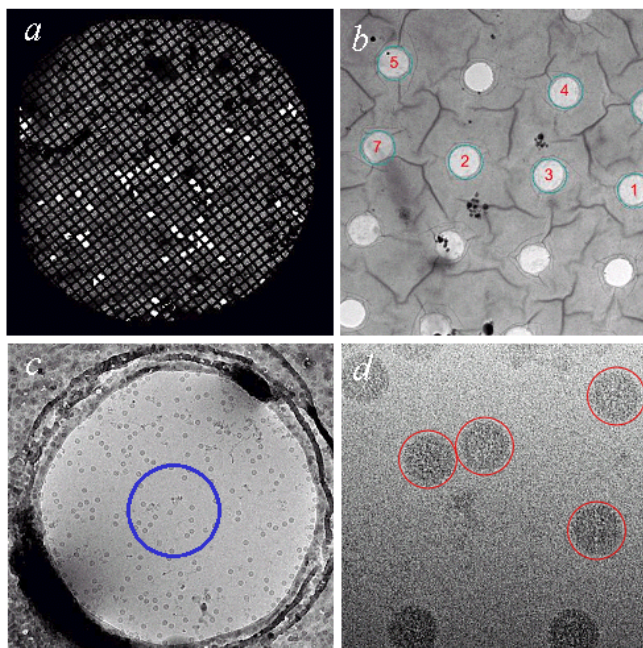


Molecular Electron Microscopy Core

About Us

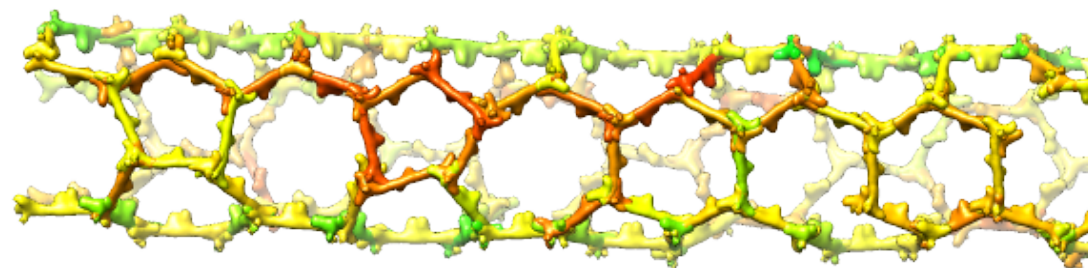
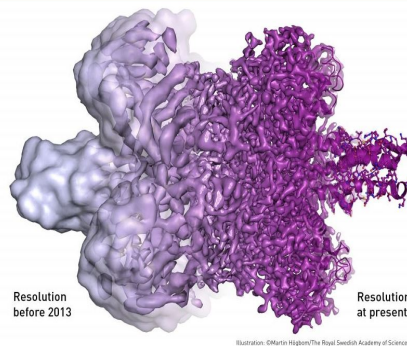
The University of Virginia Molecular Electron Microscopy Core (MEMC) is a transmission electron microscopy (TEM) imaging facility equipped with four transmission electron microscopes, a cryo-FIB-SEM (Focused Ion Beam and Scanning Electron Microscope), and a low-humidity sample preparation room with automated grid plunging instruments. MEMC resources are available for assisted or independent use by researchers following appropriate training or MEMC staff can perform sample preparation and/or data collection services.



Our Services

The MEMC provides full-service or assisted cryogenic grid preparation, single-particle electron cryo-microscopy (cryo-EM) and electron cryo-tomography (cryo-ET) data collection, single-particle cryo-EM and tomography data processing, and single-particle cryo-EM structure determination. The MEMC offers training in all aspects of single-particle cryo-EM, cryo-ET, and TEM imaging.

The MEMC prepares fixed, stained, and embedded cell and tissue samples for ultrathin sectioning and TEM imaging. Members of the MEMC work closely with users to understand the goals of each sample preparation and data collection project and are available to consult with researchers during project design and through completion and publication.



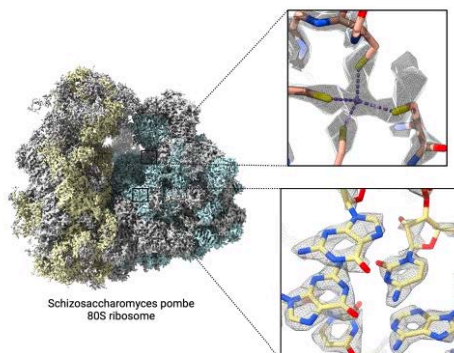
Instrumentation

Transmission Electron Microscopes:

- 300-kV Titan Krios with K3 direct electron detector and BioQuantum energy filter
- 200-kV Glacios with Falcon4 direct electron detector
- 200-kV Tecnai F20 with XF-416 CMOS detector
- 120-kV Spirit T12 with CCD detector

Sample Preparation:

- Aquilos 2 cryo-FIB-SEM (Gallium focused ion beam, with scanning electron microscope, integrated fluorescent light microscope, and cryo-lift-out)
- Leica GP2 and Vitrobot Mark IV automated cryo-grid plungers located in a low-humidity sample preparation room.



The MEMC can help with your

structural biology

projects



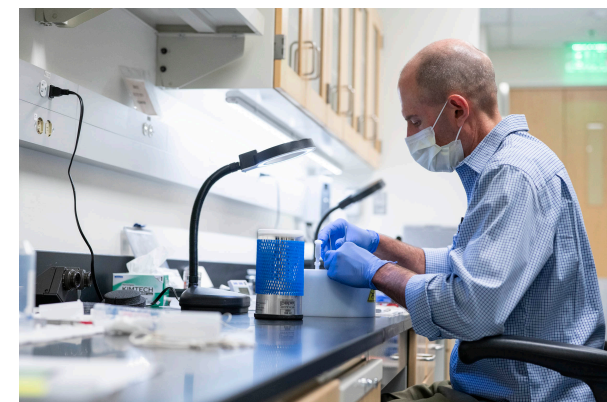
***Enhancing Research,
Rigor and Reliability***

Our Team

Michael Purdy, PhD-Interim Director
Assistant Professor of Molecular Physiology
and Biological Physics

Sara Wilmsen, PhD - Research Scientist

David Cooper, PhD - Assistant Professor of
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MEMC Website:
med.virginia.edu/molecular-electron-microscopy-core

Request services on:
uva.corefacilities.org/account/login

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SCHOOL of MEDICINE