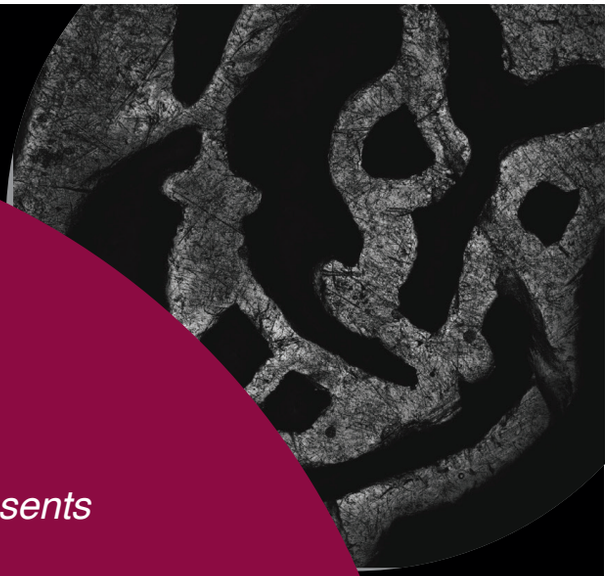
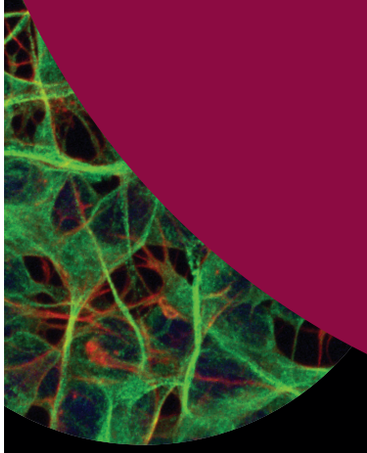


Arizona Imaging and Microanalysis Society presents

Microscopy Conference Program

April 17, 2026



Arizona Imaging and Microanalysis Society
azmicroscopy.org

President's Note

Dear Conference Attendees,

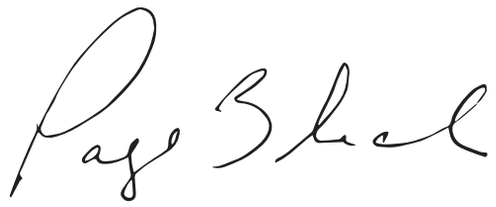
We welcome you to the 2026 Arizona Imaging and Microanalysis Society Conference. We have a great set of speakers from across the Nation who direct some of the leading microscopy core facilities. They will describe their core's organizational strategies, services, instruments and cutting edge research as well as what they envision for future expansion and instrument development.

On Thursday April 16, 2026, we hosted the "Histotechnology and Microscopy Workshop" with a focus on preparing and imaging samples for improved data quality. This multi-speaker workshop focused on optimizing methods related to the use of biobanks, developing tissue microarrays, improving EM sample workflow, sample prep and system optimization using the Evident VS200 slide scanner and biologial sample prep for NanoSIMS imaging. Continuing education credits were available for ASCP certified histotechnologists.

Our conference would not be possible if it were not for the in kind support and sponsorship that we receive each year to host this annual event. AIMS is a Local Affiliate Society [LAS] of the National Microscopy Society of America [MSA] and each year we receive funding through the Tour Speaker and Grant in Aid Programs to help offset costs and cover travel costs to our nationally recognized speakers. We also wish to thank the Arizona Biomedical Research Centre for their generous support which allowed us to provide a whole day image analysis workshop and help cover the venue and catering. Last, but not least, we want to thank all of our sponsors for their generous support that allows us to provide poster awards, catering, host the Image Analysis workshop and cover other associated conference expenses. Please take a moment during the conference to stop by their tables to say Hi and check out their microscopy related products.

Thank you for being a part of the AIMS community and I hope you enjoy the meeting!
Best Regards,

Page Baluch, PhD
AIMS 2025-2026 President



AIMS Arizona Imaging and Microanalysis Society
azmicroscopy.org

ARIZONA DEPARTMENT OF HEALTH SERVICES
Arizona Biomedical Research Centre

MSA Microscopy Society of America

MAS Microanalysis Society

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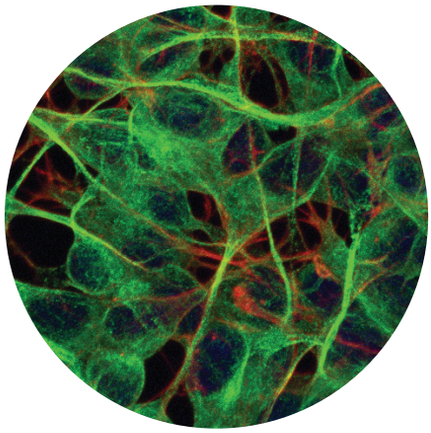

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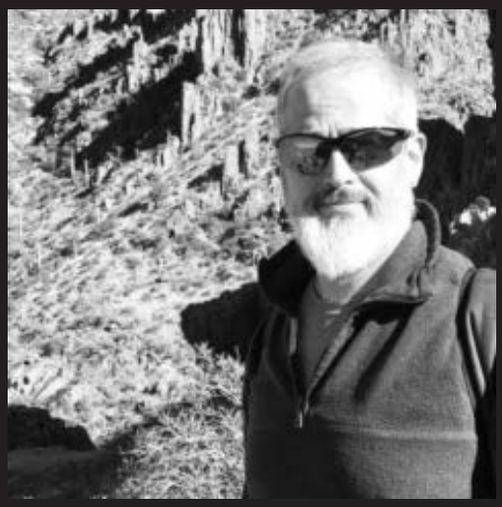
AIMS 2026 Conference Program

April 17, 2026

8:00 – 8:45 AM	**Check – In**
8:45 – 9:00 AM	**Opening Remarks**
9:00 – 9:40 AM	**Dewight Williams** *"Cryogenic Low Dose Imaging for Structure Determination"* **Eyring Materials Center, Arizona State University** (Research Scientist)
9:40 – 10:20 AM	**Katherine Jungjohann** *"Low Dose In-Situ and Multiscale Cryo Microscopy on Solid-Liquid Interfaces"* **National Laboratory of the Rockies** (Group Research Manager)
10:20 – 11:20 AM	**Morning Break/Student Posters/Visit Vendors**
11:20 – 12:00 AM	**Kedar Narayan** **"** Volume Electron Microscopy: A Nanoscale Windo into 3D Cell Biology" **National Institutes of Health** (Group Leader – EM Core)
12:00 – 12:15 PM	**Microscopy Core Facilities in Arizona**
12:15 – 1:15 PM	**Lunch**
1:15 – 1:55 PM	**John Watts** *"Cryo-FIB/(S)TEM of Low-Z Hydrated, and Beam Sensitive Materials"* **Los Alamos National Laboratory, CINT** (Staff Scientist, Thrust Co-Leader)
1:55 – 2:35 PM	**Vendor Lightening Talks**
2:35 – 3:05 PM	**Break/Student Posters, final judging/ Visit Vendors**
3:05 – 3:45 PM	**Peter Ercius** *"Integrating Microscopy, Large Language Models, and Hight-Performance Computing"* **NCEM, Lawrence Berkeley National Laboratory** (Staff Scientist)
3:45 – 4:15 PM	**Jessica Warren** "*Developing a Microscopy Toolkit for the Cellular Biology of Non-Model and Intracellular Organisms"* **Arizona State University** (Postdoctoral Researcher)
4:15 – 4:45 PM	**Thomas Marchese** *"Hiding and Seeking Sodium Metal in Sodium Closo-Hydroborate, and Electron Beam Damage Study"* **University of Chicago** (NSF Graduate Research Fellow)
4:45 – 5:00 PM	**Awards and Closing Remarks**
5:15 – 5:40 PM	**AIMS Business Meeting** Annual Society General Meeting

Speaker Biographies



Dewight Williams

CryoEM Core Director, Arizona State University

My efforts are focused on helping institutions in establishing cryogenic EM facilities and training users in sample preparation, data collection strategies, and image processing algorithms. My current position is at Arizona State University, where I am part of an energetic group of researchers working within the Erying Material Center and the Biodesign Institute where I assist in establishing a Southwestern Regional Consortium of structural biologists. Cryogenic EM methods are but a part of this overall effort.

Katherine Jungjohan

National Laboratory of the Rockies

Group Research Manager III-Materials Science, National Laboratory of the , Katherine Jungjohann's research efforts are focused on advanced electron microscopy techniques being applied to clean energy materials, including cryogenic, multiscale, in-situ, and dose-sensitive electron microscopy. Topics include electrochemical interfaces, phase transformations, thermochemical reactions, and degradation reaction mechanisms.

Kedar Narayan

Group Leader and Senior Scientist at the National Institutes of Health

Kedar Narayan is a senior scientist and group leader at the Center for Cancer Research Volume Electron Microscopy (CVEM) at Frederick National Laboratory and National Cancer Institute, NIH, USA. Kedar has a Ph.D. in immunology, with an emphasis on biophysics and imaging, and a background in chemistry, pathology and software engineering. His group has developed and applied FIB-SEM and other volume EM technologies to questions in cancer and cell biology. Specific areas of Kedar's research focus are correlative imaging, vEM tool development and deep learning/AI; his lab released "empanada", a popular napari plugin for automated segmentation of organelles from EM images. He has co-authored more than fifty papers and given invited talks around the world. His community work includes co-organizing conferences on volume EM and "large data", leadership on data working groups, and creating common metadata standards for the field. As a leading member of the volumeEM community, Kedar is committed to the growth and democratization of the field.

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SAMPLE PREP FOR TEM STUDIES

Automated Graphene Liquid Cell Fabrication

- Automated GLC assembly with pure monolayer graphene
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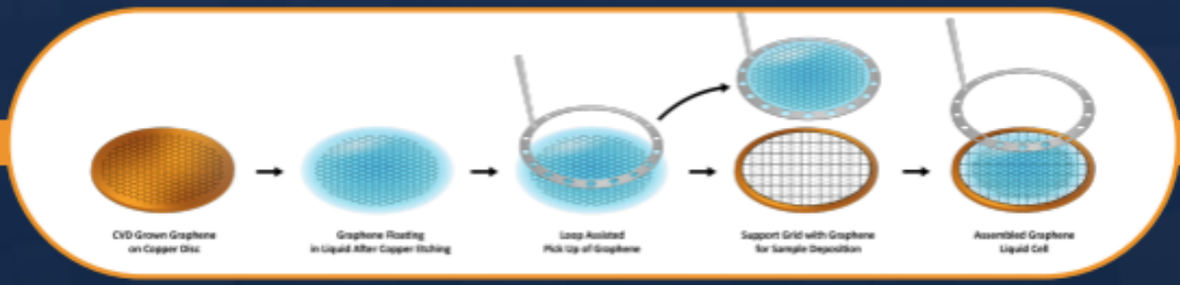
- Minimizes beam-induced damage to sensitive samples



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Speaker Biographies

John Watt

Scientist and Electron Microscopist, Center for Integrated Nanotechnologies (CINT), Los Alamos National Laboratory

Dr. John Watt is a Scientist and electron microscopist at the Center for Integrated Nanotechnologies (CINT) at Los Alamos National Laboratory. He received his PhD in Chemistry from Victoria University of Wellington, New Zealand and held postdoctoral positions at both VUW and Sandia National Laboratories. His research interests include synthesis and characterization of soft matter and inorganic materials and investigating their unique interfaces and behaviors using both cryo- and in-situ E

Peter Ercius

Staff Scientist, National Center for Electron Microscopy, Molecular Foundry, Lawrence Berkeley National Laboratory

Peter Ercius graduated from Cornell University with a a Ph.D. in applied and engineering physics with Professor David A. Muller in 2009. He then joined the NCEM facility as a collaborative postdoctoral researcher for 2 years before being hired as a permanent Staff Scientist of the Molecular Foundry. Peter is currently in charge of the electron tomography program at NCEM and the dual aberration-corrected TEAM 0.5. Dr. Ercius is a leading expert in electron tomography and collaborates with users of the Molecular Foundry on a wide range of projects including S/TEM atomic resolution imaging, electron tomography, 4D-STEM scanning diffraction, in situ liquid TEM, and electron energy loss spectroscopy (EELS).

Jessica Warren

Hanna Gray Fellow/HHMI, Postdoctoral Researcher, Arizona State University

Plants are essential for life on Earth. One of the most important features of plant cells is the chloroplast, which originated from the capture of a cyanobacterium approximately a billion years ago and facilitates the process of photosynthesis. Jessica Warren is investigating how the chloroplast's bacterial structures and genetic features have been integrated into modern plant cells, and how this incorporation controls plant development and physiology.

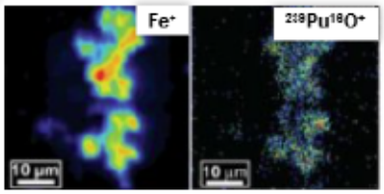
Thomas Marchese

PhD. student of the Pritzker School of Molecular Engineering at The University of Chicago

Thomas is recipient of a NSF Graduate Research Fellowship and member of the Laboratory for Energy Storage and Conversion under advisement of Prof. Y. Shirley Meng and Dr. Nestor Zaluzec. His B.S. was in Materials Science and Engineering at Georgia Institute of Technology. His research advisor at Georgia Tech was Dr. Matthew McDowell under whom I completed the Undergraduate Research Option studying interfacial chemo-mechanics of solid-state lithium-ion batteries. Thomas is currently a visiting graduate student at Argonne National Laboratory and past president of the MSA student council.

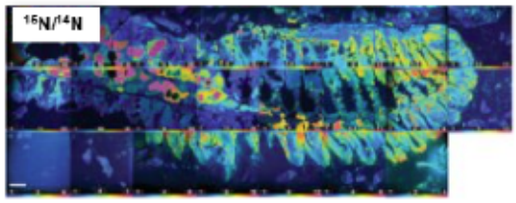
CAMECA NanoSIMS HR

Large mass range chemical imaging



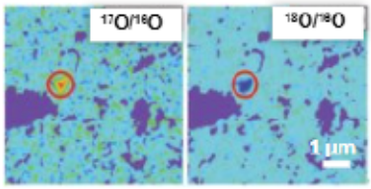
Colloid Transport of Plutonium
Novikov et al., Science, 2006

Turnover and metabolite exchange of isotopically labeled nutrients



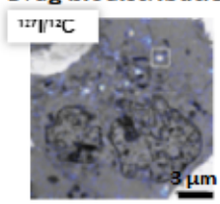
Symbiosis between bacteria and shipworm
Lechene et al., Science, 2007

Extreme isotopic abundance signature in <µm grains



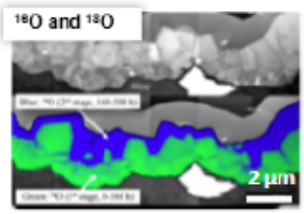
Presolar grains in meteorites
Nguyen & Zinner, Science, 2004

Drug biodistribution



^{127}I-labelled therapeutic molecules in HEK293 cell
Kay et al., Pharmaceutic, 2022

H_2O and O_2 diffusion in metal



Oxygen corrosion front in Cr-alloy
Falk-Windisch et al., MC, 2018

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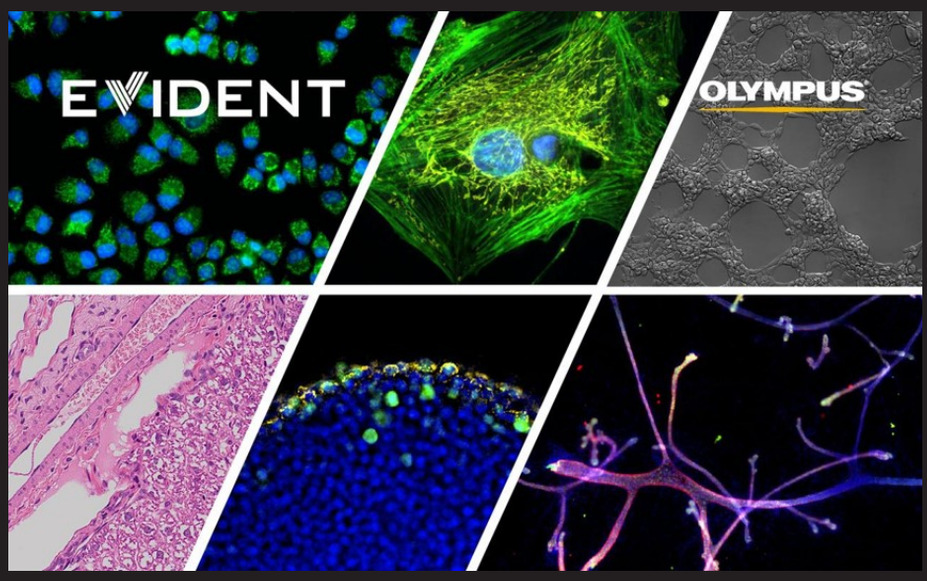

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