

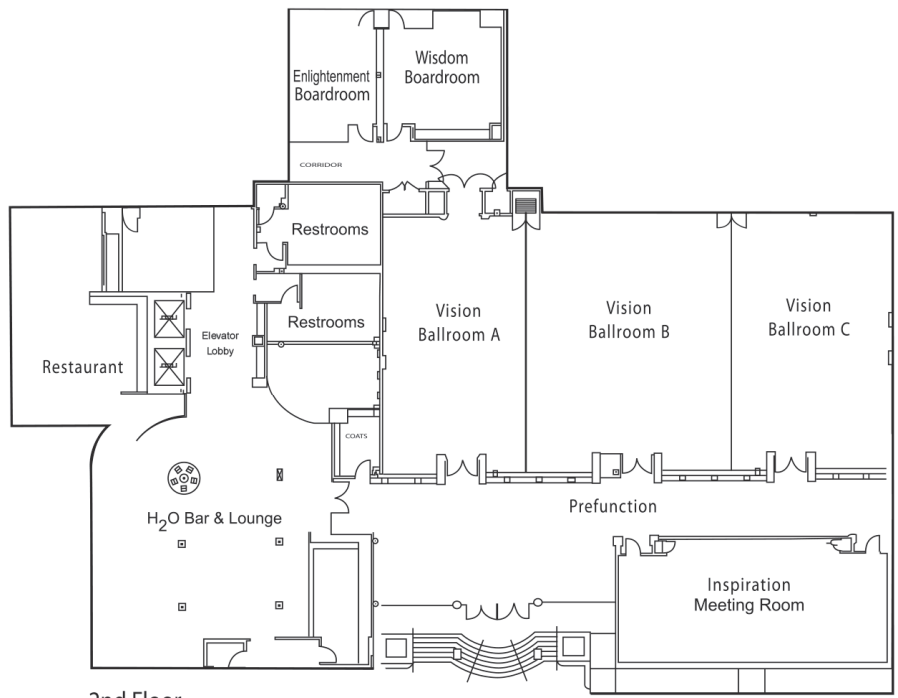
ATTENDING THE BANQUET?

BE PREPARED FOR MICROSCOPY JEOPARDY!!

After the meal at Thursday's Banquet, and before the Awards Presentations, we will have a round of Microscopy Team Jeopardy with prizes going to the winning table. Just a hint, some of the categories will include information from Thursday's talks and specific information about Vendor products. So, pay close attention to Thursday's talks and be sure to visit our Vendors and find out what is new in their product line.



1st Floor



2nd Floor

SEMS 2024 PROGRAM

WEDNESDAY, MAY 8, 2024

Registration – 10:00am to 4:30pm

VISION BALLROOM ATRIUM

Vision Ballroom B and C will be available for Vendor Setup all day.

12:00 pm – 1:30 pm

SEMS Executive Council Meeting
Wisdom Boardroom

2:30 pm – 3:30 pm

Beverages available for Registered Attendees
Vision Ballroom B and C

2:00 pm – 5:00 pm

Group visit to Tennessee Aquarium, advanced registration and payment required. Meet in Lobby of DoubleTree Hotel at 1:30 pm.

6:00 pm – 8:00 pm

Corporate mixer

VISION BALLROOM B AND C

POSTERS

Posters: Please set up Wednesday afternoon or early Thursday morning.

A Modular, Open Source, Inexpensive, Cryo-Preparation System for Plunge and Slam-Freezing.

Evan Krystofiak, Vanderbilt University.

Aryl hydrocarbon receptor ligand supplementation impacts colitis-associated depressive-like behavior.

Raymond Bogdon, University of South Carolina School of Medicine, Columbia.

The Cryo-Electron Microscopy Facility (CEMF) at The University of Alabama at Birmingham.

Terje Dokland, University of Alabama at Birmingham.

THURSDAY MORNING, MAY 9, 2024

Registration – 10:00am to 4:30pm

VISION BALLROOM ATRIUM

8:15 am – 8:30 am

Welcome

Brandon Walker, President

8:30 am – 8:45 am

History of the SEMS Ruska Award

Jay Jerome, Historian

Session 1:

RUSKA COMPETITION

Moderator:

Justin White

8:45 am – 9:00 am

Investigating the correlated dynamics of ribosomes and chromosomes in *Escherichia coli*.

Chathuddasie Amarasinghe, University of Tennessee-Knoxville.

9:00 am – 9:15 am

Cancer Cachexia Increases Skeletal Muscle Lipid Deposition and Decreases Intramyocellular Lipid Droplet-Mitochondrial Contact.

Thomas Cardaci, University of South Carolina School of Medicine, Columbia.

9:15 am – 9:30 am

Investigating the thermal stability and alloying behavior of anisotropic core@shell metal nanoparticles on a metal oxide support.

Thomas Egan, University of Central Florida.

9:30 am – 9:45 am

Fluorescence in Juvenile Spiders of Genus *Neoscona*-An Observational Study.

Mary Ann Garren, Blue Ridge Community College.

9:45 am – 10:00 am

Cell Based Sodium Alginate Microcapsules Within Ocular Diseases: A Proof of Concept.

Chelsea Zizzi, University of South Carolina School of Medicine, Columbia.

10:00 am - 10:30 am

Break (Please visit Exhibitors and Posters)

Refreshments are in Vision Ballroom B and C

Session 2:

Moderator: *Jay Jerome*

- 10:30 am – 11:15 am ***MSA Invited Speaker***
Volume Electron Microscopy (vEM): Concepts, Correlations, and Computations.
Kedar Narayan, Center for Molecular Microscopy, NIH
- 11:15 am - 11:45 am ***Ann Ellis Invited Speaker***
Tips for Acquiring Microscopy Equipment through Federal Grants.
Evan Krystofiak, Vanderbilt University.
- 11:45 am - 12:15 pm **Everyday Multimodal TEM and STEM in Digital Micrograph 3.6.**
Fernando C. Castro, Gatan, Inc.
- 12:15 pm –1:30 pm** **Lunch (*On your own*)**

THURSDAY AFTERNOON, MAY 9

Session 3:

Moderator: *Bob Price*

- 1:30 pm - 2:15 pm **MAS Invited Speaker**
Electron Microscopy Frontiers in Solid-State Battery Innovation.
Miaofang Chi, Duke University & Oak Ridge National Laboratory.
- 2:15 pm – 2:45 pm **A Complete Compressed Sensing System For Scanning Electron Microscopy.**
E. L. Principe, PanoScientific, LLC.
- 2:45 pm – 3:15 pm **The STEP Initiative – A Materials Genome Project for Open Resource Sharing.**
Deborah F. Kelly, Pennsylvania State University.
- 3:15 pm – 3:45 pm **Break (Please visit Exhibitors and Posters)**

Session 4:

Moderator: *Rachel Hart*

- 3:45 pm – 4:15 pm **Staphylococcus aureus bacteriophage 80a: from head to tail.**
Terje Dokland, University of Alabama at Birmingham.
- 4:15 pm – 4:45 pm **Physics...Schmysics! A straightforward guide to techniques that overcome diffraction limited resolution.**
Jay Jerome, Vanderbilt University Medical Center.
- 4:45 pm – 5:15 pm **Cryo-EM Screening of Apoferritin at 100 kV Using Hitachi's HT7800 Thermionic Transmission Electron Microscope.**
Heather Berensmann, Hitachi High-Tech America Inc.
- 6:00 pm - 7:00 pm **Social (Vision Ballroom B and C)**
- 7:00 pm – 9:30 pm **Banquet, Team Microscopy Jeopardy, and Award Presentations.**
Inspiration Meeting Room

FRIDAY MORNING, MAY 10

8:00 am- 9:30 am **Business Breakfast**
Inspiration Meeting Room

Session 5:

Moderator: *Vania Almeida*

9:30 am – 10:00 am **The ‘Greenest’ and Most Cost-Effective Way to Image
Arbuscular Mycorrhizal Fungi - A New Freshman
Biology Lab Experience.**
Jonathan D. Hulse, Blue Ridge Community College.

10:00 am – 10:30 am **Revealing Collagen Orientation with A Portable, Cost-
Effective and Label-Free Mueller Matrix Microscope.**
V.N. Du Le, University of Alabama in Huntsville.

10:30 am **Closing Remarks:** *Rachel Hart, Incoming President*