

NNCI: The Nanotechnology Collaborative Infrastructure Southwest (NCI-SW) (Grant Number NNCI ECCS-2025490)



Trevor Thornton¹, Ines Montano², Mariana Bertoni¹, Jameson Wetmore³, and Gabriel Montano²

¹ School of Electrical, Computer and Energy Engineering, Arizona State University

² Department of Applied Physics and Materials Science, Northern Arizona University

³ School for the Future of Innovation in Society, Arizona State University

NCI
Southwest



The NCI-SW is the southwest regional hub of the NNCI, supporting nanoscale science, engineering, and education to grow the manufacturing industries of the 21st century.

Nanoscience Research Centers

- ASU NanoFab: Nanofabrication facility for device processing and characterization tools.



- Eyring Materials Center: Materials characterization; surface, optical and structural analysis; high resolution microscopy.



- Advanced Electronics and Photonics Core: Semiconductor R&D for new technology demonstration and low-volume manufacturing



- User Facility for the Social and Ethical Implications of Nanotechnology: Integrating academic and societal concerns to better understand how to govern new technologies.
- Center for the Lifecycle of Nanomaterials: Developing assays to assess the environmental fate of nanomaterials.
- Center for Materials and Interfaces in Research and Applications: *iMIRA!* is focused on the development of functional materials through the exploration of materials interfaces.



CENTER FOR MATERIALS INTERFACES
IN RESEARCH & APPLICATIONS

A collaboration between Arizona State University, Northern Arizona University, Science Foundation AZ, & Rio Salado College



- Partner with community colleges and universities across the Four Corners region of the southwest to deliver nanotechnology-based STEM curriculum, including remote access labs.



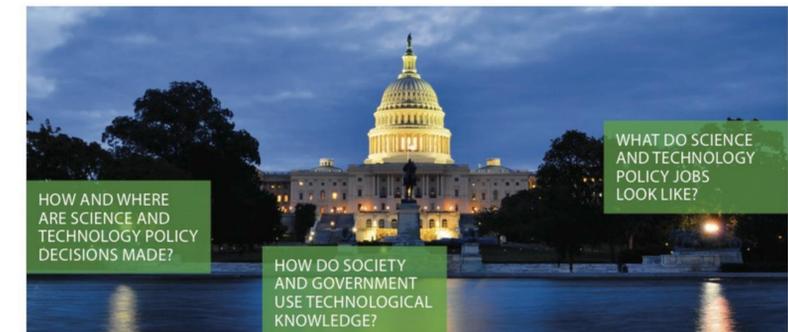
- Established a regional association of university nanotechnology lab managers to develop best practices for managing cleanrooms and associated multi-user facilities.
- NCI-SW is collaborating with Rio Salado College to host advanced laboratory curriculum for students enrolled in their two-year, AAS degree in Nanotechnology.



Intel is Hiring Manufacturing Technicians

Science Outside the Lab (SotL)

- SotL is a two-week policy immersion program in Washington, D.C. for graduate students in science and engineering.
- Policy analysts, lobbyists, business people and decision makers from across the political spectrum discuss their work with participants.
- SotL presents the complex landscape around science policy.



Seamless access to technical, educational and outreach resources

- Disseminate best practices across the NNCI through webinars, workshops, and on-line training videos.
- Build user groups from non-traditional communities in the fields of geological and environmental sciences, biochemistry, and medicine.

Senior Investigators

Ton Sharp, Associate Director (Geosciences)
Dragica Vasileska (Simulation and Modeling)
Miguel Yacaman, (Advanced Microscopy)
Paul Westerhoff (Environmental Sciences)
William Graves (Free Electron Laser Spectroscopy)
Caroline VanIngen-Dunn (STEM Outreach)

Plus: Wendy Barnard (Assessment) and Anthony Evans (Marketing)