

NNCI: The Nanotechnology Collaborative Infrastructure Southwest (NCI-SW) (Grant Number 1542160)



Trevor Thornton¹, Stuart Bowden¹, Jenefer Husman² and Jameson Wetmore³

¹ School of Electrical, Computer and Energy Engineering,

² The T. Denny Sanford School of Social and Family Dynamics,

³ School for the Future of Innovation in Society

Arizona State University

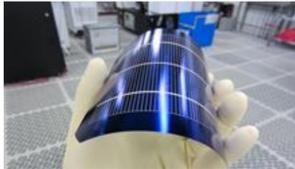


The NCI-SW is the southwest regional hub of the NNCI, supporting nanoscale science, engineering, and education to grow the manufacturing industries of the 21st century.

Nanoscience Research Centers

- **ASU NanoFab:** Nanofabrication facility for device processing and characterization. 
- **LeRoy Eyring Center for Solid State Science:** User facility for materials characterization; surface, optical and structural analysis; and high resolution electron microscopy. 
- **User Facility for the Social and Ethical Implications of Nanotechnology:** Integrating academic and societal concerns in order to better understand how to govern new technologies.
- **Center for the Lifecycle of Nanomaterials:** Developing assays to assess the environmental fate of nanomaterials.

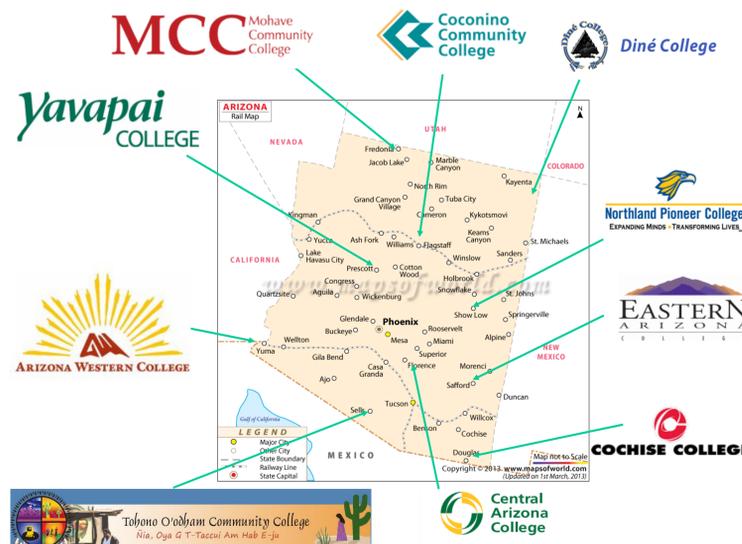
Industry Standard Pilot Lines

- **Solar Power Lab:** Developing new technologies and ideas for a more sustainable society. 
- **Flexible Electronics and Display Center:** Flexible electronics design, fabrication, test and integration capability. 
- **Peptide Array Core Facility** Microarrays and processing for immunosignaturing and other applications.

A collaboration between Arizona State University, Science Foundation Arizona and Maricopa County Community College District



- Partner with community colleges in Phoenix, Tucson, rural Arizona, and on Native American tribal lands to deliver nanotechnology based STEM curriculum, including remote access labs.
- Support Community College Faculty Ambassadors drawn from a pool of faculty who have participated in previous RET programs.

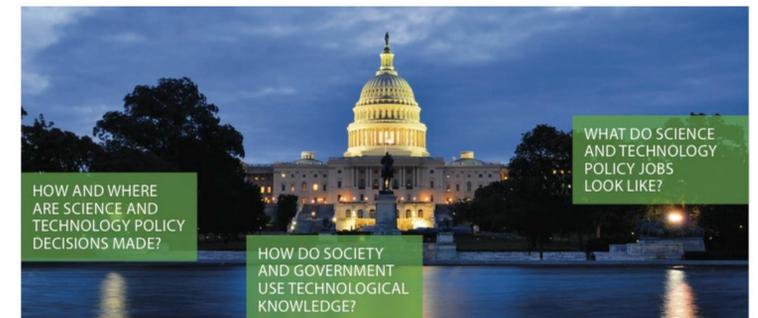


Train NNCI Users in Entrepreneurship

- Support four student-led teams each year to participate in an 8-week Professional Entrepreneurship Certificate Program offered by the ASU W.P. Carey School of Business.
- Teams from any NNCI site may apply.

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

Neal Woodbury, Associate Director (Bio-Nanomedicine)
 Ton Sharp, Associate Director (Geosciences)
 Mark Strnad (Flexible Electronics)
 Dragica Vasileska (Simulation and Modeling)
 Paul Westerhoff (Environmental Sciences)
 Audrey Iffert (Entrepreneurial Programs)
 Mike Lesiecki (Web Portal)
 Caroline VanIngen-Dunn (STEM Outreach)

Plus: Wendy Barnard (Assessment), Anthony Evans and Jeff Luth (Marketing)