

Agnes (Nesia) Zurek, PhD

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<http://scholar.google.com/citations?user=2OOQov4AAAAJ>

Key Skills

- One on one mentoring
- Classroom Teaching
- Problems Based Teaching
- Team Based Teaching
- Teaching Students with Mental Disabilities
- Multilingual (Fluent in English and Polish, understands French and Spanish)
- Use of technology (PowerPoint, iClickers, and online study tools)
- Service and management
- Laboratory Safety
- Presentation Skills
- Flexible Schedule
- Team collaboration
- Technical Writing

Education and Training

- Post-Doctoral Fellowship in Biomedical Engineering – University of New Mexico – Albuquerque, NM – 2011-present
- Doctor of Philosophy in Molecular, Cellular, and Developmental Biology – University of Colorado, Boulder – Boulder, CO – May 2011
- Bachelor's of Science in Biological Sciences – University of California, Davis – Davis, CA – December 2005

Professional Experience

Post-doctoral Fellow, University of New Mexico – Albuquerque, NM – 2011-present

Center for Biomedical Engineering

Mentors: Andrew Shreve and Steven Graves

Teaching

- Guest lectured in a Protein Engineering course.
- Mentored graduate students (Jose Cornejo and Nadiezda Fernandez)

Service and Management

- Volunteered at UNM's School of Engineering Open House (2012)
- Volunteered at "The Art of Systems Biology and Nanoscience" Event (2013)
- Generated novel collaborations with the University of New Mexico Hospitals Department of Surgery and the Center for Integrated Nanotechnologies at Sandia National Laboratories.

Research

- Developed flow cytometry assays to study biological membranes, and membrane proteins.

Doctoral Research Fellow, University of Colorado, Boulder – Boulder, CO – 2006-2011

Molecular, Cellular, and Developmental Biology Department

Mentor: Gia Voeltz

Teaching

- Taught Genetics and Cell Biology Lab courses
- Mentored undergraduate students in the lab (Lenore Sparks, Janice Scott, and Jesse Clark)

Research

- Used electron microcopy and fluorescence microscopy to study endoplasmic reticulum structure.

Service and Management

- Organized the bi-annual Graduate Student Symposium in 2008.
- Served as a representative of the Faculty Recruitment Committee (2008-2009) and the Committee for Graduate Student Affairs (2007-2008).

Undergraduate Employee, Los Alamos National Laboratories – Los Alamos, NM – 2003-2006
Center for Integrated Nanotechnologies

Mentor: Gabriel Montano

Teaching

- Mentored undergraduate students (Armanda Roco and Sean Donohoe).

Research

- Studied lipid interactions with nanomaterials including nanostructured surfaces and fullerenes.

Service and Management

- Managed over 70 individuals in organizing the annual LANL Student Picnic (2006).
- Served as a representative of the Student Programs Association Committee and Student's Association, making significant improvements to the LANL Student Program (2006).

Awards and Achievements

- Center for Integrated Nanotechnologies, Sandia National Labs, Rapid Access User (2012)
- Cancer Nanotechnology Training Center Postdoctoral Training Grant, National Cancer Institute, \$25,000/year (2012-2014)
- NIH Creative Training in Molecular Biology Training Grant, GM07135 (2007–2009)
- LANL (Los Alamos National Laboratory) Distinguished Student Performance Award (2006)
- Outstanding Undergraduate Presentation — Tethering Liposomes for Single Molecule Fluorescence Detection, Los Alamos National Laboratories (Student Symposium 2003)
- National Dean's List, University of California, Davis (2002)

Publications

1. West M, **Zurek N**, Hoenger A, and Voeltz GK. *A Detailed 3D Analysis of ER in Budding Yeast Reveals How ER Domains are Organized by Membrane Shaping Proteins*. *J Cell Biol.* 2011 Apr 18;193(2):333-46.
2. **Zurek NA**, Sparks LA, and Voeltz GK. *Reticulon Short Hairpin Transmembrane Domains are used to Shape ER Tubules*. *Traffic*, Jan; 12(1): 28-41.
3. English AR*, **Zurek N***, and Voeltz GK. *Peripheral ER Structure and Function*. *Current Opinions in Cell Biology*. 2009, 21(4): 596-602 *contributed equally.
4. Werner JH, Montano GA, Garcia AL, **Zurek N**, Akahadov EA, Lopez GP, and Shreve AP. *Formation and Dynamics of Supported Phospholipid Membranes on a Periodic Nanotextured Substrate*. *Langmuir*. 2009 25(5): 2986-93.

Posters and Presentations

- **Zurek N**, Howdieshell R, McGuire P, Howdieshell T, Shreve AP, and Graves S. *A flow cytometry based MMP assay to detect MMP activity from tissue homogenates*. 2013 SLAS Conference.
- **Zurek N**, Sparks LA, and Voeltz GK. *Reticulons: Shaping up the ER*. 2010 Keystone Symposia, Molecular Basis for Biological Membrane Organization and Dynamics.
- **Zurek N** and Voeltz GK. *Short Hairpin TM Domains Localize an ER Protein to the Tubular ER*. 2008 Keystone Symposia, Molecular Basis for Biological Membrane Organization and Dynamics.
- **Zurek, A.**, Werner, J., Montano, G., Shreve, A., and Lopez, G. *Lipid Membranes on Nanostructured Surfaces*. 2006 Los Alamos National Laboratory, Student Symposium.
- **Zurek, A.**, Shreve, A., Dattelbaum A., and Montano, G. *Novel Lipid Membrane Architecture on Self-Assembled Synthetic Materials*. 2005 Los Alamos National Laboratory, Student Symposium.
- **Zurek, A.**, Shreve, A., Dattelbaum A., Montano, G., Werner, J., and Parikh, A. *Tethering Liposomes for Single Molecule Fluorescence Detection*. 2003 Los Alamos National Laboratory, Student Symposium.