

Elena Delgado

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Education

University of New Mexico, Albuquerque, New Mexico

Ph.D. in Computer Science

May 2018 to Present

- Advisor: Dr. Lydia Tapia
- Expected Graduation: Spring 2023

B.S., Biochemistry

August 2013 to May 2018

Research Experience

University of New Mexico – Tapia Lab, Albuquerque, NM

Graduate Research Assistant

May 2018 to Present

Undergraduate Research Assistant

May 2017 to May 2018

UNM IMSD Program

- Research in computational cost of fitting flexible antibody models to cryo-electron microscopy data. Designed methods to store, sort, and graph timing and parameter data collected during runtime.

University of New Mexico – Ward Lab

Undergraduate Research Assistant

May 2016 to May

2017

UNM IMSD Program

- Research in the role of relaxin-H2 in cell signaling in the context of autosomal dominant polycystic kidney disease (ADPKD). Used migration assays and Western blotting to see the effects of Relaxin-H2, TGF- β , and vehicle controls on fibroblast migration towards normal kidney epithelia *in vitro*.
- Mentor: Heather Ward, Ph.D.

University of New Mexico Hospital – Nursing Research Council, Albuquerque, NM

Undergraduate Research Assistant

June 2014 to August 2014

UNM Undergraduate Pipeline Network Summer Research Experience

- Collaboration with nurses in the cardiac unit to develop and implement new education protocols and materials for coronary artery bypass graft patients designed to increase patient/staff communication, reduce length of hospital stay, and reduce post-surgery infection and hospital readmission
- Mentor: Kathy Lopez-Bushnell, FNP, MSN, BSN

Honors and Awards

- Outstanding Undergraduate Poster Presentation in Computer Science, Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS) National Conference, 2017
- University of New Mexico Dean's List – 5 semesters
- University of New Mexico Presidential Scholar, 2013-2017

Posters and Presentations

Elena Delgado, Kasra Manavi, and Lydia Tapia. “Computational Costs of Fitting Tomogram Tilt Series of Flexible Molecules with Gaussian Mixture Models.” Poster at the *SACNAS National Conference*, Salt Lake City, UT, October 2017; Oral Presentation at UNM Biology Research Day, Albuquerque, NM, March 2018

Elena Delgado and Heather Ward. “The Role of Relxin-H2 in Mediation of Cystic Renal Epithelial Recruitment of Fibroblasts.” Poster at the *SACNAS National Conference*, Long Beach, CA, October 2016; Poster at UNM Biology Research Day, Albuquerque, NM, March 2017

Skills

Computer Programming:

- Java, Python
- Emacs, Microsoft Office Suite
- Window, OSX, and Linux platforms

3D Modeling and Printing:

- FreeCAD, Blender, Cura
- Lulzbot FDM/FFF Printer Operations and Maintenance

Biochemistry (Wet Lab):

- Bright field and immunofluorescence microscopy
- Culture of human cell lines and bacteria
- DNA extraction, primer design, and contig assembly (Vector NTI)

References available upon request