

Education

University of Washington, Department of Chemical Engineering

PhD. *Ongoing* GPA: 3.52

University of Miami, College of Arts and Science

Majors: Chemistry, Ecosystem Science and Policy, Religious Studies

Minors: Mathematics GPA: 3.71 Graduation Date: *May 2015*

Leadership

Founding Member Women in Chemical Engineering

2015-Present

- Initiate outreach efforts to mentor and encourage young women to study a STEM field
- Create a network of women in chemical engineering of all levels from undergraduate, graduate, industry and academic fields

Women's foil captain for University of Miami Fencing Team

2014-2012

- Taught new fencers the techniques and strategic ways of thinking involved in fencing
- Spearheaded campus tournament for Miami participants

Corresponding Secretary for Service Fraternity Alpha Phi Omega

2013-2012

- Organized the volunteer work at Lotus House, with Relay for Life, the Boy Scouts of America and various hospitals in Miami
- Opened communication with our Alumni and kept them involved in the organization

Research Experience

PhD Student, *University of Washington, Dr. Qiuming Yu*

January 2016-Present

- Developing perovskite crystal solar cells and discovering ways to stabilize components for future commercialization

NSF Research Experience for Undergraduates, *University of Wisconsin
Dr. Brian Pflieger, Dr. Andrew Markley*

May-August 2014

- Developed primers, genetically engineered cyanobacteria and analyzed effectiveness of genetic modifications
- Optimized parameters for species of bacteria in use, discovered why cyanobacteria were crashing in dairy digestate samples for carbon neutral lysine synthesis

- Environmental Glacial Research**, *University of Iceland, Dr. Þóra Ellen Þórhallsdóttir* *January-May 2014*
- Analyzed soil composition and content of various glacial recession sites for seedling growth to discover first succession cycle in Iceland
- Molecular Wire Research**, *University of Miami, Dr. Nita Lewis* *August-December 2013*
- Synthesized molecular wires for use in nanoelectronics and tested their viability
- Environmental Research**, *University of Miami, Professor Gina Maranto* *August-December 2012*
- Created plan of action for the University of Miami's green effort based on sustainability policies of other institutions and literature research.

Awards, Honors and Fellowships

- Honorable Mention NSF Fellowship** *April, 2016*
- John Tershin Endowed Chemical Engineering Fellowship** *September, 2015*
- Achievement Rewards for College Scientists (ARCS) Fellowship** *May, 2015*
- ICHEIC Miami Award** *March 2014*
- NSF EFRI-REM Award** *May, 2013*
- President's, Provost's, Dean's List** *2011-2015*
- Florida Academic Scholars Award** *August, 2011*
- Dickinson Scholarship** *August, 2011*

Presentations

Tosado, Gabriella, "Cyanobacteria Response in Dairy Digestate for Carbon Neutral Lysine Synthesis".
REU Poster Session, University of Wisconsin-Madison, July 2013

Teaching and Educational Outreach Experience

- Mass and Energy Balance Teaching Assistant**, *University of Washington, Dr. Bradley Holt* *March 2016-June 2016*
- Instructed a class of 70 undergraduate in the concepts of mass and energy balance
 - Clarified any confusing topics with students

Cleveland High School Lecturer*May 2016*

- Lectured to graduating seniors about chemical engineering career opportunities to encourage more minorities towards STEM majors

Medina Elementary School STEM Night Lecturer*April 2016*

- Presented chemical engineering concepts at an elementary school level to over 200 students

High School Expanding Your Horizons Conference Lecturer*March 2016*

- Introduced chemical engineering concepts to over 60 high school women in an effort to close the gender gap in STEM

Bryant Elementary Mentorship*January 2016-March 2016*

- Helped groups of elementary students through the scientific process for school science fair

Chemistry Teaching Assistant, University of Miami, Dr. Tegan Eve*August 2013-May 2015*

- Designed teaching material to effectively test students on what they learned in class and their knowledge of the day's experiment
- Oversaw freshmen chemists during all experiments and made a safe environment for students
- Taught techniques for testing melting/ freezing point and depressions, recrystallizations, purifications for different substances, identification and pH experiments

Engineering Camp Lecturer and Counselor, University of Wisconsin Madison, Francisca Jofre*May-August 2014*

- Challenged students with environmental problems and guided them to create solutions
- Encouraged and led students to create their own robotic devices

Summer Camp for Autistic Children Counselor, Aldrin Elementary School, Lesley Aschenbach*June-August 2010*

- Taught children with various mental disabilities basic reading and math
- Developed daily activities for campers to practice music and art