

## Natalie Sanchez

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### Education

- University of South Carolina, Columbia, SC 2016 - Fall 2018  
Master of Science, Biology  
Cumulative GPA: 3.91/4.0
- The University of Pennsylvania, Philadelphia, PA 2012 - 2016  
Bachelor of Arts in Biology, class of 2016  
Cumulative GPA: 3.23/4.0
- Science Leadership Academy (SLA), Philadelphia, PA 2008 - 2012  
High School, class of 2012  
Cumulative GPA: 3.89

### Professional Experience

- Graduate Student Researcher, University of South Carolina* 2016 - current
- Conducted field research at the Rocky Mountain Biological Laboratory in Colorado
  - Used Spectrophotometer to obtain reflectance measurements of butterfly wings and Irradiance recordings from collection sites
  - Imaged biological samples on Scanning Electron, Confocal, and Light microscopes
  - Performed histology (i.e. cryosectioning, resin embedding, and paraffin embedding) and immunolabeling techniques (H&E staining and immunofluorescence) to prepare samples for microscopic imaging
  - Performed computational modelling to obtain quantitative measurements of butterfly spectral sensitivity
  - Taught BIOL 102L - Biological Principles II Laboratory
  - Animal care (conchs, crayfish, butterflies, etc.)
- Electron Microscopy Technician, University of Pennsylvania, Department of Physics, Philadelphia, PA* 2015-2016
- Performed histology (e.g. resin embedding, staining, sputter coating) and imaged pollen samples on Transmittance Electron Microscope (TEM), Scanning Electron Microscope (SEM), and light microscopes.
  - Used ImageJ software to obtain morphometric data from SEM images of pollen at different stages of development
  - Mentored High school students in a lab project
- WPD and APD Student Intern, Environmental Protection Agency (EPA) Region III, Philadelphia, PA* 2010 - 2016
- Scanned, filed, and organized Mid-Atlantic region mining permits
  - Created reference spreadsheets outlining water chemical levels
  - Organized state correspondence letters and permit records on EPA's database
  - Reviewed and Approved Virginia and Pennsylvania State Implementation Plans (SIPs)
  - Translated Burnwise brochures and presentations to Spanish for outreach conferences
- Lab Assistant, University of Pennsylvania, Department of Biology* 2014-2015
- Maintained lab area clean and organized labware
  - Prepared MS Media plates
  - Screened plants for fluorescent protein markers
  - Dissected and fixed plant seedlings at different stages of development for observation under confocal microscope

## Volunteer Experience

*Student Volunteer*, Puentes de Salud, Philadelphia, PA 2013 - 2014

- Tutored children in Puentes Hacia el Futuro Summer Reading Program
- Translated Patient needs/symptoms into English at the Puentes clinic
- Collected Patient co-payments and logged them into the Puentes clinic money log

*Live Animal Center Volunteer*, Academy of Natural Sciences, Philadelphia, PA 2009 - 2010

- Prepared food and fed the animals
- Sanitized the animal living spaces
- Handled animals and participated in behavioral enrichment

*Church Volunteer*, Centro Cristiano la Roca (CCLR), Philadelphia, PA 2007 - 2014

- Functioned as a teacher in CCLR's summer bible school
- Prepared food for church fundraisers
- Participated in community outreach initiatives

## Skills

- Animal husbandry (mammals, avians, reptiles, butterflies, and marine invertebrates)
- Experience teaching biology laboratory courses and tutoring grade school and high school level English courses
- Proficient at using Rstudio and trained in SAS statistical analysis software
- Proficient in the use of light microscopy, SEM and TEM, and Confocal microscopy
- Trained on histological tissue embedding and immunostaining procedures
- Trained in general laboratory procedures (i.e. Autoclaving, PCR, Preparation of agar media plates, microscopy, lab maintenance/safety)
- Proficient at typing and using computer programs (Microsoft office, Pages, ImageJ, Photoshop etc.)
- Bilingual, fluent in Spanish and English (spoken and written)
- Team player
- Advanced organizational and communication skills
- Self-motivated

## Professional Development

Watt Fest - August 2017

Women in Data Science - February 2018

University of South Carolina, Neuroscience Community Retreat - May 2017

Society of Integrative and Comparative Biology (SICB) national conference - January 2017 & 2018

## Presentations

Sanchez, N. (2017, November). "Differential Gene Expression Analysis in the heads of *Heliconius erato* Males and Females". Poster session presented at the regional Computational Biology Symposium (CBS) student meeting, Columbia, SC

Sanchez, N., Speiser, D., & Boggs, C. (2018, January). "The Visual Ecology of *Speyeria mormonia*". Poster session presented at the national conference of the Society for Integrative and Comparative Biology (SICB), San Francisco, CA

Sanchez, N., Speiser, D., & Boggs, C. (2018, May). "The Visual Ecology of *Speyeria mormonia*". Poster session presented at Discover USC, Columbia, SC