

Shelly Jones | shellytessajones@gmail.com | 631.456.1702 | Denver, CO

EDUCATION

University of Colorado, Denver, CO
Doctoral student in Neuroscience September 2015 - Present

Thomas Jefferson University, Philadelphia, PA
Master of Science in Biomedical Sciences July 2015

The Cooper Union for the Advancement of Science and Art, New York, NY
Bachelor of Engineering in Chemical Engineering, Minor: Biomedical Engineering May 2011

AWARDS AND HONORS

Neuroscience Training Grant, University of Colorado School of Medicine 2015 - 2017
Alumni Thesis Award, Thomas Jefferson University May 2016
Harald Kiel Award, The Cooper Union May 2011
Student Undergraduate Research Fellowship, SUNY Downstate Medical Center Summer 2010
Full Tuition Scholarship, The Cooper Union 2007 - 2011
Robert C. Byrd Honors Scholarship, U.S. Department of Education 2007 - 2011
Scholarship for Academic Excellence, NY Department of Education 2007 - 2011

PEER-REVIEWED PUBLICATION

Liang, Q, Anderson, W, **Jones, ST**, Souza, CS, Hosoume, JM, Treptow, W, Covarrubias, M. "Positive Allosteric Modulation of Kv Channels by Sevoflurane: Insights into the Structural Basis of Inhaled Anesthetic Action." PLOS ONE PLoS ONE 10.11, 2015 Nov 24

SUBMITTED MANUSCRIPT

Zylberberg, J., **Jones, S.** "A new stimulator can trigger phase-locked spiking and increase timing resolution in electrically stimulated auditory nerve fibers" *Under Review*

PUBLISHED ABSTRACT

Jones, Shelly T., Juliana Hosoume, Leticia Stock, Caio Souza, Werner Treptow, and Manuel Covarrubias.
"Sevoflurane Potentiates Kv Channels by Inhibiting a Late Non-Conducting State: A Plausible Mechanism of General Anesthetic Action Implicating the Selectivity Filter." *Biophysical Journal* 108.2 (2015): 281a

RESEARCH EXPERIENCE

University of Colorado School of Medicine July 2016 - Present

- Conduct experimental research on mitral cell gap junctions, using electrophysiology, in the olfactory bulb, in the lab of Dr. Nathan Schoppa
- Use computational modelling to study processing states of mitral cell gap junctions, in the lab of Dr. Joel Zylberberg

Thomas Jefferson University, *Research Technician*

October 2013 - August 2015

- Conducted research on voltage gated potassium channel structure and biophysical characteristics using two electrode voltage clamp, patch clamp electrophysiology, and molecular biology techniques including site directed mutagenesis and molecular cloning, under the direction of Dr. Manuel Covarrubias.
- Assisted with laboratory management and maintenance, including performing various animal surgeries, preparing chemical solutions and reagents, and providing experimental support to other lab members.

SUNY Downstate Medical Center, *Research Intern*

August 2009 - December 2010

- Examined effects of pharmaceutically induced seizure-like activity on live Sprague-Dawley rats and on hippocampal slices under the direction of Dr. Mark Stewart.
- Analyzed correlation between simultaneous recordings of vagus nerve and cervical sympathetic activity, EEG, EKG, and blood pressure of Sprague-Dawley rats using MATLAB software.

The Cooper Union, *Independent Study in Computational Biophysics*

September 2010 - December 2010

- Researched methods of computational spike sorting for use in neurophysiology research, specifically comparing Gaussian clustering and superparamagnetic clustering.

PROFESSIONAL EXPERIENCE

Philadelphia Water Department, *Environmental Engineer and Project Manager* July 2011 - October 2013

- Managed green stormwater infrastructure projects from the site identification and planning phase through development of construction documents.
- Developed and coordinated a Stormwater Management and Implementation Plan for the American Street Stormwater Planning District.
- Assisted with construction management for designed GSI projects, including construction inspection, review of materials, and authorizing design changes in the field.
- Developed design resources and standards for the implementation of the Green City, Clean Waters stormwater management plan.

Cooper Union Information Technology Department, *Manager*

September 2007 - June 2011

- Managed over 70 student operators as an IT department for all computer systems on campus, with tasks including administering payroll for all student employees, implementing and enforcing staff policies, providing technical support to students and faculty, and maintaining computer systems throughout campus.

Cooper Union Introduction to Physics Laboratory Class, *Teaching Assistant* September 2009 - May 2011

- Supervised students in the Introduction to Physics Laboratory class, with tasks including setting up experiments, guiding students through experimental procedures, and grading homework assignments.

PROFESSIONAL ACTIVITIES

Presenter at: Poster Presentation at Biophysical Society Annual Meeting 2015

Poster Presentation at Thomas Jefferson University, Sigma Xi Student Research Day 2015

2013 Pennsylvania Stormwater Management Symposium

Grand Re-Opening & Celebration of Julian Abele Park

Member of: Society for Neuroscience, Biophysical Society, Order of the Engineer

VOLUNTEER EXPERIENCE

Member of:	University of Colorado Neuroscience Program Admissions Committee	2016 - present
	Front Range Neuroscience Group Steering Committee	2016 - present
	Association of Women in STEM Outreach Committee	2016 - present
	Engineers Without Borders (EWB)	2013 - 2015
	Friends of Seger Park	2012 - 2015
Activities:	Community STEM Clubs Program	
	Organize a STEM education club at a Englewood Leadership Academy	2016 - present
	Event Organizer, Association of Women in STEM Outreach	2016 - present
	Girl Scout Day	
	Volunteer, University of Colorado Neuroscience Outreach Program	
	“BRAIN Day”, Denver Museum of Nature and Science	2016 - present
	Volunteer, <i>Friends of Seger Park</i>	
	Various park clean-up days and fundraising events	2013 - 2015
	Volunteer, <i>Casa Xalteva</i>	
	Granada, Nicaragua	December 2012 - January 2013