

SOPHIA VELASCO

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Education

University of Florida, Gainesville, FL

Anticipated: May 2023

B.S. in Chemistry, Specialization in Biochemistry

B.S. in Psychology, Specialization in Behavioral and Cognitive Neuroscience

Freshman Honors Program, Consistent President's Honor Roll, Consistent Dean's List

Research Experience

McKnight Brain Research Foundation

Gainesville, FL

Undergraduate Research Assistant

Aug 2019-Present

- Worked with Dr. Khoshbouei, Dr. Lebowitz, and M.D. Candidate Abeer Dagra on researching the effects of alpha-synuclein overexpression on the morphology of mice neurons afflicted with Parkinson's Disease.
- Collaborated with Dr. Shaerzadeh in analyzing morphological effects of strokes and aging on microglia in the somatosensory cortex, motor cortex, and striatum.

Abstracts, Presentations & Publications

- Abeer Dagra, Douglas Miller*, Min Lin, Adithya Gopinath, Fatima Shaerzadeh, Zach Sorrentino, Joe J Lebowitz, Ella Ksagna, Sharonda Harris, **Sophia Velasco**, Janelle Azar, Adetola R Alonge, Carissa Hansen, Nikhil Urs, Michael Salvatore, Benoit Giasson, Habibeh Khoshbouei. "Novel insights in the pathophysiology of α -synuclein dysregulation on D2 receptor activity contributing to the vulnerability of dopamine neurons." **(Submitted)**
- Battig, Babi, Madagan, Busl, Ahmed, Contractor, **Velasco**, Baron-Lee. "The implementation of an early learner-assisted rooming and vitals initiative to improve wait times and cost in an outpatient facility." *Journal for Healthcare Quality* (IF: 1.092). **(Submitted)**
- Dagra, A. **Velasco**, S., et al. (Feb 2020). Increased Alpha-Synuclein disrupts Dopamine Neurotransmission through a D2R dependent mechanism. Poster **Presentation** at the U.F. College of Medicine Symposium.
- **Velasco**, S., Alonge, A, and Azar, J. (June 2020). Increased Alpha-Synuclein Disrupts Cellular Morphology, Contributing to Vulnerability of Midbrain Dopaminergic Neurons. **Presentation** for Khoshbouei Laboratory Team.
- **Velasco**, S et al. (Nov 2020). α -synuclein Overexpression Decreases Arborization of Dopaminergic Neurons and Contributes to their Dysfunction. **Abstract and Poster** at UF Fall 2020 CURBS Symposium.
- **Velasco**, S et al. (Nov 2020). Changes in striatal microglial morphology in young and aged mice subjected to experimental ischemic stroke. **Abstract and Poster** at UF Fall 2020 CURBS Symposium.

Involvement

UF Health

Gainesville, FL

Neuromedicine Interdisciplinary Clinical and Academic Internship Tier 1 Intern

Jan 2020-March 2020

- Strove to create the perfect patient experience by rotating across clinical, administrative, and quality improvement arenas in the Neurosurgery and Neurology departments.

Science Olympiad

Jan 2019-Present

Author and Supervisor

- Contributed to nation-wide STEM outreach in middle schools and high schools by cooperating with Science Olympiad organizations in the United States as an **exam author and event supervisor** (physically supervise at a competition).
- Composed **60+ Science Olympiad exams** at the regional, state, and national-level and collaborated with 16 universities, including Harvard, Stanford, and Cornell.
- Partnered with **Harvard University Science Olympiad (HUSO)** to deliver virtual educational content centered on Environmental Science as a part of the HUSO Online Initiative.

Teaching Assistant

Gainesville, FL

CHM2050 (Honors General Chemistry I)

Sep 2020-Dec 2020

- Mentored undergraduate students (mostly Chemistry and Biochemistry majors) in General Chemistry I topics through holding virtual office hours.
- Proctored and graded exams along with Dr. Angerhofer and the Graduate TA.