

Jennifer Art
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Education

University of Georgia **August 2022- Present**
Neuroscience PhD Student, Department of Biochemistry and Microbiology
Dissertation Project: Novel Stem Cell model for PTSD in sympathetic neurons

New Mexico State University, 3.421 Overall GPA **August 2017-May 2021**
B.S. in Biochemistry (ASBMB certified)
Minors: Mathematics, Biology

Los Alamos High School, 3.8 GPA **June 2017**

Research Experience

Zeltner Lab-University of Georgia **January 2022-Present**
UGA Graduate Research Assistant

- Participate in stem cell based research of peripheral nervous system pathologies
- Reprogramming adult fibroblasts and peripheral blood mononuclear cells into induced pluripotent stem cells
- Differentiations of human stem cells into sympathetic neurons, neural crest cells, cardiomyocytes, and intermediate mesoderm
- Immunofluorescent staining and imaging of cells for the purpose of characterization
- Extracted and purified RNA and gDNA and made cDNA from tissue cultures
- qtPCR quantification of gene expression in various tissue culture samples
- Measure extracellular electrical activity with microelectrode array technology

Neuromechanics in Sports Injury Rehabilitation **June 2019-May 2021**

NMSU Undergraduate Research Assistant

- Carried out multiple research projects under the direction of Dr. Yong Woo An and Dr. Sang-Rok Lee
- Prepared human blood samples for biomarker analysis by pipetting and centrifuging
- Monitored human brain waves using Electroencephalogram while participants performed physical function tasks
- Synchronized electroencephalogram and electromyograph to simultaneously collect brain and muscle function data
- Used Biodex dynamometer to assess knee proprioception of healthy control and anterior cruciate ligament repair patients
- Performed EEG data analysis using MATLAB program following Makoto's pipeline
- Interface with human subjects to collect and assess results before generating reports that detail findings
- Worked with a team to solve problems and design experiments following COVID-19 precautions
- Participated in weekly journal clubs discussing papers related to the labs research goals

Los Alamos National Laboratory Summer 2018 (June-August) Winter 2018 (Dec.-Jan.)
Summer Student, Los Alamos, NM

- Worked in the Physical Chemistry and Applied Spectroscopy division under the mentorship of Dr. Kristy Nowak-Lovato
- Assisted in formulating polymer inks to be used to 3D print waveguides
- Developed basic research and laboratory skills for both independent and team research
- Investigated the use of spectroscopic techniques to identify plant stressors
- Used MediaWiki language to compile relevant data, literature, and basics of relevant topics into an easy to navigate internal webpage to allow easy access for all collaborators on the projects
- Attended multiple panels and research talks regarding national security and the research science that is involved

Scientific Presentations and Conferences

Graduate Poster Presentation- University of Georgia

Art, J., James, C., Wu, HF., Chatzinakos, C., Daskalakis, N., Michopoulos, V., Zeltner, N. "Preliminary Stages of a Novel Stem-Cell Based Model for Post-Traumatic Stress Disorder Pathologies in the Sympathetic Nervous System." Regenerative Bioscience Center-Animal & Dairy Sciences Research Symposium; April 2022.

Undergraduate Poster Presentation-Virtual

Art, J., Kang, Y., An, Y. and Kroger, J. "Association between brain and physical function in older adults compared to younger adults." Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS); October 2020.

Accepted Abstract-New Mexico State University

Art, J., Kang, Y., and An, Y. "No brain differences between young and old participants during physical function tests." Undergraduate Research and Creative Arts Symposium (URCAS); April 2020.

Honors and Awards

-NIH T32 Genetics Training Grant Awardee	August 2022-Present
-Diversity MATTERS Scholar	April 2022-Present
-Osborne Assistantship Award	May 2021
-American Society for Biochemistry and Molecular Biology accreditation	May 2021
- Maximizing Access to Research Careers Scholar	June 2019-May 2021
- UC Davis Neuroscience Initiative to Enhance Diversity Participant	April 2019
- Conroy Achievement Scholar	August 2017-May 2021
- Alycia & Hans Fuchs Memorial Scholarship Fund for Chemistry Majors	August 2019
- National Merit Commendation	Spring 2017
- National Hispanic Scholar	Spring 2017
- Knights of Columbus Ladies Auxiliary Scholarship	Spring 2017

Other Work and Experience

Howard Hughes Medical Institute NMSU BioCat

August 2018-May 2019

- Facilitated the instruction, proctoring, and evaluation of tests for fundamental biology courses taught to freshman-level students
- Spearheaded two weekly workshops, each containing 25 students, for one semester with the aim of providing extra instruction, via learning activities, to supplement professor's lectures
- Held weekly office hours to provide additional help to students struggling with concepts

Service

Immaculate Heart of Mary Catholic Church

2013-Present

Volunteer- Los Alamos, NM

- Organized, planned, and carried out activities for youth group retreats and weekly events
- Lead small group discussions and presented talks
- Sung in the youth group band at youth retreats, events, and masses
- Organized, wrapped, and delivered gifts to families and communities in need with the yearly Angel Tree project

Los Alamos High School Student Council

2013-2017

Council member- Los Alamos, NM

- Organized and lead a workshop at the 2017 New Mexico Association of Student Councils State Conference
- Helped plan and organize dances, parades, and pep rallies
- Participated in many service activities including food drives, writing letters, and visiting nursing homes

Specialized Skills and Interests

Laboratory Techniques: Stem cell maintenance, iPSC reprogramming, aliquoting, qPCR, PCR, fixing and staining cell cultures, pipetting, primer design, titration, glassware calibration, light microscope, aseptic techniques, viscometer, tensiometer, electroencephalograph, electromyograph, transcranial direct current stimulation