
Career Objective

To combine the study of human physiology and nutrition with current space exploration advancements under investigation at the National Aeronautics and Space Administration.

Education

Doctorate of Exercise Physiology <i>Florida State University, Tallahassee, FL</i>	<i>to be awarded 2020</i>
Undergraduate Bachelor of Science: Biochemistry Minors: Biology and Mathematics <i>Florida State University, Tallahassee, FL</i>	<i>2012-2016</i>
High School Diploma <i>Space Coast High School, Port St. John, FL</i>	<i>2012</i>

Abstracts

P. Ghosh, A.E. Cullen, H. Park, J. Goldsmith, J.J. Maraj, K. Evanson, D.C. Zawieja, B.J. Behnke, M.D. Delp. *Jugular Vein Demonstrate Enhanced Constriction Following Spaceflight in Mice*. Abstract presented at: The Gateway to Mars. NASA Human Research Program Investigator's Workshop; 2018 January 23-25; Galveston, TX.

Poster Presentations

Carnevale KJF, Muroski ME, Cullen AE, Morgan TJ, Kenworthy RN, Zorio DAR, Levenson CW, Strouse, GF. *Peptide-Mediated Nanoparticle Uptake for Targeted Cancer Therapy*. Poster presented at: Florida State University Life Sciences Symposium. 2015 February; Tallahassee, FL.

Cullen, A., Purcell, S., Prado, C. *Body Composition in Patients with Hip or Knee Osteoarthritis*. Poster presented at; The Florida State University Women in Math, Science, and Engineering Poster Presentation. 2014 May; Tallahassee, FL.

Research & Teaching Experience

Graduate Research Assistant, Florida State University <ul style="list-style-type: none">Perform pressure myography and run drug protocols on jugular vein, carotid artery, and cerebral basilar artery.Perform biochemical techniques such as Western Blots and Polymerase Chain Reactions.Prepare and raise cell cultures for rat and mouse arterial smooth muscle cells.Culture cells for experiments involving development of atherosclerosis.Run Western Blots and develop film for quantification of proteins in cell culture.	<i>2017- Present</i>
Undergraduate Research Assistant; Levenson Neuroscience Lab, Florida State University <ul style="list-style-type: none">Aided graduate students with data analysis of peptide-mediated nanoparticle uptake cell count.Performed cranial surgery on rats.Ran behavioral tests such as novel object interactions, open field tests, cross maze tests, and swimming trials.	<i>2013-2015</i>

- Undergraduate Research Assistant; Tozer Condensed Matter Lab, National High Magnetic Field Laboratory** 2012
- Formed carbon fiber nanotubes for probes studying the Fermi surface of metals.
- Teaching Assistant, Florida State University Department of Chemistry** 2015
- Lectured two classes weekly prior to performing chemistry experiment
 - Containing chemical spills
 - Grading 200+ lab reports weekly
- Student Athlete Tutor, Florida State University Student Athlete Academic Services** 2015
- Instructed student athletes in one-on-one and group tutoring for statistics, biology, chemistry, and calculus courses.
 - Reported compiled student growth charts throughout semester to supervisors

Skills and Techniques

Laboratory and Scientific Techniques:

- Analytical measurements, drug protocols and animal management
 - Behavioral testing
 - Biochemical Techniques such as Western Blot, Polymerase Chain Reaction, SDS-PAGE, Bicinchoninic Acid (BCA) assay, Enzyme Activity Assay, Restriction Enzyme Analysis, and Enzyme Linked Immunosorbent Assay (ELISA)
 - Pressure Myography
 - Protein Crystallization
 - Spectroscopic techniques such as Nuclear Magnetic Resonance (NMR), Infrared Spectroscopy, and Ultraviolet-visible spectroscopy
 - Optical and Mass Spectrometry
 - Immunohistochemistry (IHC)
 - Surgical techniques such as muscle tissue isolation, brain vessel cannulation, and jugular vein and carotid artery cannulation
 - Tissue processing techniques such as perfusion, brain removal, cryostat and microtome brain slicing, tissue staining and appropriate biological safety techniques
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