

Kyle C. McGill Percy

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EDCUATION

- Case Western Reserve University**, School of Medicine
• PhD Graduate student; Department of Physiology & Biophysics
Cleveland, OH
2022 - Current
- University of South Florida**, Morsani College of Medicine
• Master's Degree in Aging & Neuroscience
Tampa, FL
December 2020
- University of South Florida**, College of Arts & Science
• Bachelor of Science in Biomedical Science
• Graduated Magna Cum Laude with an overall GPA of 3.75
Tampa, FL
December 2017
- Hillsborough Community College**,
• Associate of Arts in Premedical Science
• Graduated with High Honors
Tampa, FL
December 2014

RESEARCH EXPERIENCE

Case western Reserve University, Department of Physiology & Biophysics
PhD student in School of Medicine in Dr. Xin Qi's lab
Cleveland, OH
July 2023 – Current

My research project centers on exploring mitochondrial dysfunction in tauopathy, with a specific emphasis on identifying novel proteins for potential therapeutic interventions. The techniques and assays listed below represent the breadth of my scientific and technical expertise.

Case Western Reserve University Department of Pathology
Research Assistant for Dr. David Kang & Dr. JungA Alexa Woo
Cleveland, OH
July 2021 – June 2022

My responsibilities include 1) researching neuron-derived exosomes in relation to neurodegeneration, 2) role of beta-arrestins in Alzheimer's disease and related dementia, 3) role of Slingshot 1 in tauopathies, and 4) role of CHCHD2 and CHCHD10 in neurodegenerative diseases.

University of South Florida Byrd Alzheimer's Institute
Biological Scientist for Dr. David Kang & Dr. JungA Alexa Woo
Tampa, FL
January 2021 – July 2021

University of South Florida Byrd Alzheimer's Institute
Graduate Student with Dr. JungA Alexa Woo
Tampa, FL
August 2020 - January 2021

PUBLICATIONS

1. Kee TR, Khan SA, Neidhart MB, Masters BM, Zhao VK, Kim YK, McGill Percy KC, Woo JA. The multifaceted functions of β -arrestins and their therapeutic potential in neurodegenerative diseases. *Exp Mol Med*. 2024 Feb;56(1):129-141.
2. Kee TR, Wehinger JL, Gonzalez PE, Nguyen E, McGill Percy KC, Khan SA, Chaput D, Wang X, Liu T, Kang DE, Woo JA. Pathological characterization of a novel mouse model expressing the PD-linked CHCHD2-T61I mutation. *Hum Mol Genet*. 2022 Nov 28;31(23):3987-4005.
3. Yoo JY, Sniffen S, McGill Percy KC, Pallaval VB, Chidipi B. Gut Dysbiosis and Immune System in Atherosclerotic Cardiovascular Disease (ACVD). *Microorganisms*. 2022 Jan 5;10(1):108.
4. Woo JA, Yan Y, Kee TR, Cazzaro S, McGill Percy KC, Wang X, Liu T, Liggett SB, Kang DE. β -arrestin1 promotes tauopathy by transducing GPCR signaling, disrupting microtubules and autophagy. *Life Sci Alliance*. 2021 Dec 3;5(3):e202101183.

LICENSE & CERTIFICATIONS

Lab & Research Safety

- University of South Florida

Issued: June 2020

Lab Safety – Comparative Medicine

- University of South Florida

Issued: June 2020

Biomedical Investigator and Key Personnel

- CITI Program

Issued: May 2020

Biomedical Responsible Conduct of Research

- CITI Program

Issued: May 2020

Educator Certificate Biology (Grades 6-12)

The Florida Department of Education

Issued: April 2019

SKILLS & TECHNIQUES

Cell and Molecular Biology

- Microbial culture
- Mammalian cell culture
- Transfections of cDNA and siRNA
- SDS-PAGE and immunoblotting
- Plasmid preparation (miniprep & maxiprep), amplification, and purification.
- Immunocytochemistry
- Confocal microscopy

Microbiology/Genetics

- DNA extraction
- Routine DNA subcloning and mutagenesis
- PCR genotyping
- Prepare, perform, and analysis of agarose gel electrophoresis.

Blood-based Biomarker Research

- Exosome isolation
- Antibody-based exosome isolation from human plasma
- Enzyme-linked immunosorbent assay (ELISA)

Histology

- Perfusion
- Brain extraction
- Prepare and slice whole animal brain
- Immunohistochemistry

Animal Care (mice)

- Handle and restrain
- Weight animals
- Breed species
- Anesthetize
- Maintain and evaluate animal records
- Assist in sterile neurosurgical procedure
- Perform brain extraction
- Mouse behavior experiments (grip strength, rotarod, open field, and fear conditioning)

Laboratory/Research instruments

- Light microscope
- Centrifuge: standard, high speed
- Incubators
- Volumetric glassware
- Sonication
- Confocal microscope includes models Zeiss LSM 880, Olympus FluoView FV10i, and Nikon C2 Ti-E.
- Microtomes
- PCR machine
- pH meter
- UV transilluminator
- Fujifilm LAS (Luminescent Image Analyzer) 4000
- Nanodrop microvolume spectrophotometer
- Autoclave

Relevant Skills

- Data processing
- Statistical analysis
- Database skills
- Proficient in scientific applications. Includes GraphPad Prism and ImageJ
- Proficient in Microsoft office applications. Includes Microsoft Excel, PowerPoint, and Word
- Proficient in Adobe suite application. Includes: Adobe Illustrator and Photoshop
- Communicate findings using models, charts, and graphs
- Communicate new research findings to an audience.
- Communicate biological research findings using scientific writing
- Ability to use a scientific approach to problems.
- Ability to work with a diverse team.
- Time and task management skills.

LEADERSHIP EXPERIENCE

Science Educator, July 2018- November 2018

Sports Leadership and Management Academy, Tampa, Florida

- Facilitate an engaged classroom environment conducive to learning and promoted excellent student-teacher interaction
- Utilized knowledge of science to construct interactive curriculum for middle school science.
- Collaboration with team members to increase student learning.
- Infused scientific essential ideas with real world applications

Volunteer Caregiver, Jamie's Adult Day Center. September 2019- December 2019

Jamie's adult day center focuses on providing a stimulating and engaging environment for individuals suffering from debilitating conditions associated with cognitive impairment. Majority of the patients were suffering from diseases associated with dementia symptoms such as Alzheimer's disease. I worked as a volunteer with varies of task these include

- Organizing and participating in varies cognitive therapies. (Example: Memory exercises).
- Conversating with patients.
- Prepare and distribute food and beverages.
- Help assist in patients in mobility and comfort. (Rolling wheelchairs or help aid in walking).

Shadowing experience, Pediatric Healthcare Alliance. 2016

- Shadowed pediatric doctor Sara Ansari.
- Learned about infant's and adolescent's safety and health.
- Observed immunization and general medical checkup and practices.

Personal Tutor, 2016- Present

- Tutored individuals in math and science course.
- Range includes middle school – college level.
- Subjects includes Algebra, Biology, and Chemistry.