Emily G. Pendleton

The Mortensen Lab, University of Georgia

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Education

Ph.D. student in Neuroscience, Expected Graduation: August, 2020
University of Georgia, Athens, GA

Master of Science in Biology; August, 2015
Bowling Green State University, Bowling Green, OH

Bachelor of Science, Biology; May 2012, *Cum Laude*
Bowling Green State University, Bowling Green, OH
Minors in Chemistry and Spanish
Honors: University Honors, Biological Honors

Research Experience

University of Georgia, Athens, GA
PhD Researcher, 2015 - present

- Doctoral research advisor Dr. Luke Mortensen
- Investigating therapeutic application of stem cell therapy for bone disease
- Improvement of bone imaging techniques using two-photon microscopy

Bowling Green State University, Bowling Green, OH
MS Researcher, August, 2013 – August, 2015

• Proposed and Executed experiment: The Effect of Curcumin and Tetrahydrocurcumin in Combination with 5-Fluorouracil on Esophageal Cancer Cell Lines under the direction of Dr. Roudabeh Jamasbi

BS Researcher, August, 2010 – May, 2012

• Initiated and completed experiment: Understanding the Role of Serotonin in the Behavioral Repertoire of Crayfish under the direction of Dr. Paul Moore

Work Experience

Cleveland Clinic, Cleveland, OH, June, 2012- August, 2013

• Lab Assistant in Pathology and Laboratory Medicine Institute: Cytogenetics Laboratory

• Lab Technician in Pathology and Laboratory Medicine Institute: Molecular Microbiology Laboratory

Publications and Posters

K. F. Tehrani, **E. G. Pendleton**, W. M. Southern, J. A. Call, L. J. Mortensen. 2-Photon Spatially Resolved Mitochondrial Imaging Using Membrane Potential Fluorescence Fluctuations. Submitted, 2017. Biomedical Optics Express.

E. G. Pendleton, R. Barrow, K. F. Tehrani, L. J. Mortensen. 2017, "Characterization of Collagen Fibers using Polarization-Resolved Second Harmonic Generation." The OSA Foundation Seigman International School on Lasers.

E. G. Pendleton, R. Barrow, A. Maslesa, T. Powell, K. F. Tehrani, L. J. Mortensen. 2017, "Bone Characterization in the Treatment of Hypophosphatasia with Mesenchymal Stem Cells." Regenerative Medicine Workshop.

K. F. Tehrani, **E. G. Pendleton**, L. J. Mortensen, "Spatially Resolved Mitochondrial 2-Photon Imaging Using Flickering Membrane Potential Fluorescence," 2017. In *Optics in the Life Sciences*, OSA Technical Digest (Optical Society of America).

K. F. Tehrani, **E. G. Pendleton**, C. P. Lin, and L. J. Mortensen, "Deep tissue single cell MSC ablation using a fiber laser source to evaluate therapeutic potential in osteogenesis imperfecta," 2016. In *SPIE BiOS*. SPIE.

E.G. Pendleton, K. F. Tehrani, B. W. Leitmann, L. J. Mortensen. 2016, "MSC Therapy for Hypophosphatasia." Southern Translational Education and Research Conference.

E.G. Pendleton, K. F. Tehrani, B. W. Leitmann, L. J. Mortensen. 2016, "MSC Therapy for Hypophosphatasia." University of Georgia Developmental Biology Retreat.

E.G. Pendleton, K. F. Tehrani, B. W. Leitmann, L. J. Mortensen. 2015, "MSC Therapy for Hypophosphatasia." World Stem Cell Summit.

Honors and Awards

- Phi Beta Kappa, member since 2012
- University of Georgia Department of Neuroscience Travel Award, 2017
- The OSA Foundation Seigman International School on Lasers Travel Award, 2017

Leadership Experience

University of Georgia

Undergraduate Mentor, January 2016 - present

- Provided daily training and guidance to undergraduate researchers
- Developed and managed individual projects of 5 students

Teaching Experience

Bowling Green State University

Graduate Teaching Assistant, August 2013 – August 2015

- Lead human anatomy laboratory twice a week for 60 students
- Instructed both lecture based learning and hands-on experiences
- Developed lesson plans and examination strategies to evaluate learning

Science Peer Tutor, January, 2010 – May 2012

- Tutored undergraduates in sciences individually and in a small group settings on a weekly basis

Skills

- Microscopy, sample preparation and imaging: two-photon microscopy, scanning electron microscopy and transmission electron microscopy

- Lab: cell culture, DNA extraction and PCR, primary cell harvest and culture, animal husbandry, colony management, retro-orbital injections, in-vivo longitudinal imaging
- Computer: Proficient in Microsoft Office, EndNote, and ImageJ; familiar with JMP
- Language: Efficient in Spanish

Outreach

- Young Dawgs mentor, University of Georgia, 2015
- NSF Research Experience for Undergraduates mentor, 2016
- Georgia Science and Engineering Fair judge, 2016