Shea E. Carr

PhD Candidate

University of Kentucky - Department of Biology

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Pronouns: she, her

EDUCATION

PhD University of Kentucky, Department of Biology. Expected May 2024. (4.0 GPA)
Advised by: Dr. Jennifer Osterhage

BS University of Kentucky, Department of Animal Science. Completed May 2018.

TRAINING

University of Kentucky, Teaching of Physiology Graduate Certificate (Expected May 2024)

American Physiological Society, Preparing Effective Physiology Educators (PrEP-E) Fellowship (2022)

TEACHING

Guest Lecturer

University of Kentucky, BIO 350: Cardiovascular Physiology (March 2022)

Graduate Teaching Assistant

BIO 350 (Animal Physiology Lab): Spring 2021 – Spring 2022, Spring 2023
BIO 303 (Introduction to Evolution Lab): Fall 2018 – Fall 2020, Fall 2022
BIO 111 (General Biology Lab): Spring 2020

Mentor

BIO 395 (Independent Research): Fall 2019 – Present

Undergraduate Teaching Assistant

ASC 101 (Domestic Animal Biology Lab): Spring 2018

AWARDS AND FUNDING

University of Kentucky Department of Biology, Morgan Fellowship, $14,520 (2023)

University of Kentucky Department of Biology, Ribble Pilot Grant, $1000 (2022)

American Physiological Society, Preparing Effective Physiology Educators (PrEP-E) Fellowship, $1800 (2022)

University of Kentucky College of Arts and Sciences, Outstanding Teaching Assistant Award, $500 (2021)

University of Kentucky Department of Biology, Ribble Pilot Grant, $1000 (2021)

University of Kentucky Department of Biology, Ribble Pilot Grant, $1000 (2020)

Cayman Chemical and Cayman Biomedical Research Institute, Women in Research Grant, $1000 (2020)

University of Kentucky Department of Biology, Biology Graduate Program Travel Grant, $800 (2020)

American Physiological Society, Invited Speaker Travel Award, $350 (2020)

PEER-REVIEWED PUBLICATIONS (previous surname Sickles)

Manuscripts:

1. **Carr, S.,** Konduri, A., Patel, A., Chisti, E., & Osterhage, J. Student-Generated Drawings Are an Effective Test-Taking Strategy in Introductory Biology. *In preparation*.

2. Weaver, C.C., **Sickles, S.E.**, Taylor, J.C., Osborn, J.L. Juvenile Offspring Born to Preeclamptic African Green Monkeys Have Reduced Glucose Tolerance and Mild Renal Insufficiency but not Hypertension. *In preparation.*

Abstracts:

1. **Carr, S.** & Osterhage, J. (2023). The Effect of Case-Based Learning on Student Motivation in an Online, Asynchronous Physiology Laboratory Course. *Accepted for SABER 2023 Conference.*

2. Osterhage, J., Konduri, A., **Carr, S.**, Patel, A., & Chisti, E. (2023). Student-Generated Drawings are an Effective Test-Taking Strategy in Introductory Biology. *Accepted for SABER 2023 Conference.*

3. **Sickles, S.**, Weaver, C.C., Taylor, J.C., & Osborn, J.L. (2020). Adolescent Offspring of Preeclamptic Nonhuman Primate Mothers Have Impaired Glucose Tolerance and Proteinuria. *The FASEB Journal*. 34: 1-1.

4. Webb, M., **Sickles**, **S.**, Osborn, J.L. (2020). Increased Pulmonary Function Following Administration of a CBD-Containing Compound NCMB-1 in Fibrotic Lungs of African Green Monkeys. *The FASEB Journal.* 34: 1-1.

INVITED ORAL PRESENTATIONS

1. **Sickles, S.E.**, Weaver, C. C., Taylor, J.C., & Osborn, J.L. "*Adolescent Offspring of Preeclamptic Nonhuman Primate Mothers Have Impaired Glucose Tolerance and Proteinuria*." Experimental Biology, Disorders of Pregnancy and Adverse Effects on Mother and Offspring. Invited Webinar presentation, May 2020.

2. **Sickles, S.E.**, C. C. Weaver, J. C. Taylor, & Osborn, J.L. "*Adolescent Offspring of Preeclamptic Nonhuman Primate Mothers Have Impaired Glucose Tolerance and Proteinuria*." Invited: Sixth Annual Healthy Hearts for Women Symposium. Lexington, KY, February 2020.

PEDAGOGICAL ACTIVITIES AND PROFESSIONAL DEVELOPMENT

- **Inclusive Teaching Badge**, University of Kentucky Center for the Enhancement of Learning and Teaching (Anticipated May 2024)
- Completed DEI training and workshops:
    - Trauma-Informed Pedagogy Workshop, University of Kentucky Center for the Enhancement of Teaching and Learning (2023)
    - Building Inclusive and Fair Classrooms: Spotting Sources of Bias in Biology Classrooms, Institute on Teaching and Learning Conference (2022)
    - Using Anti-Racist and Inclusive Techniques in the Classroom, Institute on Teaching and Learning Conference (2022)
    - Engaging Students and Identifying Barriers to Inclusion in Physiology Classrooms, Institute on Teaching and Learning Conference (2022)
- Completed general professional development training and workshops:
    - Failing (in order) to Succeed: Helping STEM Students to Approach Challenges, Cope with Failures, and Develop Scientific Resilience, Institute on Teaching and Learning Conference (2022)
    - A Framework for Reasoning About Complex Physiological Systems, Institute on Teaching and Learning Conference (2022)
    - Creating Connections: Introduction to the Alda Method, University of Kentucky Center for the Enhancement of Teaching and Learning (2021)
- Completed American Physiological Society month of learning, October 2022
- American Physiological Society Preparing Effective Physiology Educators fellowship (2022)
- **Leader**, University of Kentucky Department of Biology, Education Research and Pedagogy Journal Club (2021-Present)
- **Microteaching Leader**, University of Kentucky Teaching Assistant Orientation (2023)

PROFESSIONAL MEMBERSHIP AND SERVICE

Society for the Advancement of Biology Education Research (2023-Present)
International Association of Medical Science Educators (2021-Present)
American Heart Association (2021-Present)
American Physiological Society (2019-Present)
Working group member, Center for Physiology Education Advising Resource Group (2023)
Co-chair, Disorders of Pregnancy and Adverse Effects on Mother and Offspring, Experimental Biology Conference (2020)
University of Kentucky Biology Graduate Student Association (2018-Present)
Peer mentor for new graduate students (2020-2022)
Outreach Coordination Chair (2020-2021)

SELECT COMMUNITY OUTREACH

Kentucky Science Olympiad State Tournament, Anatomy and Physiology Event Supervisor (2022)
University of Kentucky See Blue STEM Camp, Volunteer (2021)
University of Kentucky BioBonanza – At Home Edition, Event Organizer (2021)
Kentucky American Water Science Fair, Judge (2020)
Veterans Park Elementary School STEM Night, Components of blood display (2020)
University of Kentucky BioBonanza, Cardiovascular function display (2019)
Zebras for Children with Pulmonary Hypertension, Volunteer (2019-2021)
University of Kentucky BioBonanza, Herpetology display (2018)
Bluegrass Greyhound Association, Foster (2017)

MENTORING

Annie Ballo, Student-Generated Drawings as an Effective Test-Taking Strategy in Introductory Biology (2023)
Aakshi Konduri, Student-Generated Drawings as an Effective Test-Taking Strategy in Introductory Biology (2022-2023)
Amin Katanbaf, Characterization of APOL1 genotype in preeclamptic African Green Monkeys and their offspring (2022)
Maggie Bisson, Characterization of an APOL1-like gene in African Green Monkeys (2022)
University of Kentucky Summer Undergraduate Research Fellowship recipient (2022; $2500)
Justin Ma, Characterization of an APOL1-like gene in African Green Monkeys (2020-2022)
University of Kentucky Summer Undergraduate Research Fellowship recipient (2021; $2500)
Charsey Johnson, Characterization of an APOL1-like gene in African Green Monkeys (2021-2022)
University of Kentucky Summer Undergraduate Research Fellowship recipient (2021; $2500)
Cameron Howell, Cannabinoid receptor expression in African Green Monkeys with pulmonary fibrosis following administration of cannabidiol (2021)
Madison Webb, Pulmonary function of African Green Monkeys in response to cannabinoid receptor agonists (2019-2021)