**Marie Michenkova**

Cleveland, OH 44107

(334) 462-7294 | mxm1217@case.edu

**EDUCATION**

**Case Western Reserve University;** Cleveland, OH

**Biomedical and Health Informatics,** MS

**Graduation:** Summer 2022 (Expected)

**University of Alabama at Birmingham;** Birmingham, AL

**GPA**: 3.89  
**Major:** Neuroscience; **Minor**: Chemistry  
**Graduation:** 04/27/2019; High Distinguished Honors in Sci & Tech; Magna Cum Laude

**RESEARCH EXPERIENCE**

**Walter Boron, MD, PhD. – CWRU Department of Biophysics and Physiology**

Research Assistant 2 (05/2019 – present), Research Technician 3 (10/2018 – 05/2019)

* Execute mouse surgery to isolate renal proximal tubules
* Craft a set of concentric glass pipettes for perfusion and luminal collections
* Apply this set of pipettes, along with set of solutions, to perfuse and collect luminal perfusate
* Use NanoFlo microfluorometer to assess bicarbonate reabsorption, JHCO3-
* Perform radioactive C14-inulin assays to assess fluid reabsorption, Jv

**Mark O. Bevensee, Ph.D. – UAB Department of Cell, Developmental and Integrative Biology (CDIB)**

Undergraduate Research Assistant (08/2016 – 08/2018)

* Care for and handle amphibians in compliance with IACUC
* Execute survival amphibian surgery to isolate oocytes
* Isolate cRNA for microinjection into oocytes
* Perform gel electrophoresis, qPCR, and DNA/RNA isolation
* Utilize two-electrode voltage clamp to assess ion transporter functionality in oocytes
* Perform single-oocyte chemiluminescence assay to determine functional expression at the cell membrane
* Asses pH with pH-sensitive dyes and microelectrodes
* Analyze and visualize data with GraphPad Prism and MS Excel

**Laurence Bradley, Ph.D. – UAB School of Medicine Division of Clinical Immunology and Rheumatology**

Undergraduate Research Assistant (08/2014 – 04/2018)

* Recruit and screen UAB participants
* Administer informed consent
* Direct cognitive and pain-sensitive assessments
* Develop and manage electronic database (RedCap) for data entry of sleep, mood, and pain-related questionnaires
* Assist during X-rays, MRI, and fMRI
* Training: CITI modules, HIPAA, IRB compliance

**Mark O. Bevensee, Ph.D. and Lynn E. Dobrunz, Ph.D. – UAB CDIB and UAB Department of Neurobiology**

Undergraduate Neuroscience Program Summer Research Academy Scholar (04/2017 – 08/2017)

* Execute mouse surgery to isolate brain tissue
* Section murine brain tissue by vibrating microtome
* Perform extracellular hippocampal recordings

**PRESENTATIONS**

**Experimental Biology (April 2018)**

Michenkova M, Thornell IM, Peng JB, Bevensee MO. The oculocerebrorenal syndrome of Lowe protein (OCRL) inhibits the Na/Bicarbonate cotransporter NBCe1 expressed in *Xenopus laevis* oocytes. Poster session presented at Experimental Biology; April 2018; San Diego, CA.

**UAB Summer Research Academy oral presentation (August 2017)**

Michenkova M, Dobrunz LE, Bevensee MO. Regulation of pH via electrogenic sodium-bicarbonate cotransporter (NBCe1) in ischemia. Oral presentation at: UAB Summer Research Honors Academy; August 2017; Birmingham, AL.

**The 29th Annual Ost Undergraduate Research Competition (April 2017)**

Michenkova M, Goodin BR & the Understanding Pain and Limitations in Osteoarthritic Disease (UPLOAD) Study Team. Obesity and symptomatic knee osteoarthritis. Poster session presented at: Ost Undergraduate Research Competition; April 2017; Birmingham, AL.

**University of Alabama at Birmingham EXPO (April 2017)**

Michenkova M, Goodin BR & the Understanding Pain and Limitations in Osteoarthritic Disease (UPLOAD) Study Team. Obesity and symptomatic knee osteoarthritis. Poster session presented at: UAB Spring 2017 EXPO; April 2017; Birmingham, AL.

**ABSTRACTS**

Michenkova M, Thornell IM, Peng JB, Bevensee MO. The oculocerebrorenal syndrome of Lowe protein (OCRL) inhibits the Na/Bicarbonate cotransporter NBCe1 expressed in *Xenopus laevis* oocytes [abstract]. In Experimental Biology; April 2018; San Diego, CA.

**PROFESSIONAL AFFILIATIONS**

American Physiological Society

American Society of Nephrology

**ACADEMIC HONORS AND AWARDS**

American Society of Nephrology, 2020 Kidney STARS Award Recipient

Presidential Honor Roll (2016 – 2018)

Science and Technology Honors Program Scholar (2014 – 2018)

Undergraduate Neuroscience Program Scholar (2014 – 2018)

UAB International Student Scholarship (2014 – 2018)

UAB Undergraduate Neuroscience Program Research Academy Scholar (2017)

Patsy W. Collat Endowed Scholarship in Neuroscience (2017)

Dr. Aaron Lamar Scholarship (2017)

Science and Technology Honors Program Summer Scholarship (2017 – 2015)

International Undergraduate Academic Excellence Award (2016)

Joseph F. Volker International scholarship (2016)

College of Arts and Sciences Dean’s Scholarship (2016)

National Alumni Society Dean’s Scholarship (2015)

Caroline and Charles W. Ireland International Student Scholarship (2015)

**EXTRACURRICULAR ACTIVITIES AND COMMUNITY SERVICE**

American Sign Language Level II (01/2020 – 04/2020)

American Sign Language Level I (10/2019 – 12/2019)

Equal Access Birmingham clinic Volunteer (2017 – 2018)

Judge at UAB 3MT Thesis Competition (2017)

Delta Phi Omega, Philanthropy - Children’s Education and Literacy (2016 – 2018)

American Red Cross volunteer and UAB Blood Drive organizer (2016 – 2017)

UAB Ambassador Program (2016 – 2017)

Undergraduate Neuroscience Program Ambassador (2016 – 2017)

Resident Assistant (2015 – 2017)

Alabama Brain Bee, Director (2014 – 2017)

Physician Shadowing – 100 hours (2014 – 2017)

Honors College Leadership Council, President (2015 – 2016)

New Student Orientation Leader (2015 – 2016)

Student Alumni Society Leadership Council (2014-2016)

Central Alabama Regional Science & Engineering Fair (2015)

Science Olympiad volunteer and proctor (2015)

**EMPLOYMENT HISTORY**

**Department of Physiology and Biophysics (05/2019 – present)**

Research Assistant II – Boron Lab

Case Western Reserve University

**Department of Physiology and Biophysics (10/2018 – 05/2019)**

Lab Technician III – Boron Lab

Case Western Reserve University

**Department of Chemistry (01/2017 – 04/2018)**

Teaching Assistant

University of Alabama at Birmingham

**Science and Technology Honors Program (08/2017 – 04/2018)**

Teaching Assistant

University of Alabama at Birmingham

**Starbucks Corporation (08/2014 – 04/2018)**

Certified Barista

Birmingham, AL

**International Student and Scholar Services (08/2014 – 08/2015)**

Student Assistant

University of Alabama at Birmingham