

Arden McMath

Division of Nutritional Sciences, University of Illinois at Urbana-Champaign
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EDUCATION

Predoctoral Candidate, Nutritional Sciences August 2019- present
University of Illinois at Urbana-Champaign
Research Area: Dietary patterns, physical activity and cognition in children; microbiome
Co-advisors: Dr. Naiman Khan, Ph.D., R.D., Dr. Sharon Donovan, Ph.D., R.D.

Masters of Science, Kinesiology & Health May 2019
Miami University, Oxford
Concentration: Exercise & Health Science
Advisors: Dr. Kyle Timmerman
Research Area: Associations between physical activity levels, insulin resistance and Adiponectin/Leptin ratios in older adults

Bachelor of Science, Kinesiology & Health May 2018
Miami University, Oxford.
Majors: Kinesiology, Nutrition
Concentrations: Dietetics

PEER REVIEWED CONFERENCE PRESENTATIONS AND PUBLICATIONS

Alessio, Helaine M.; Reiman, Tim; Kemper, Brett; Kemper, Courtney; Mullen, Ryan; DiRe, McKenna; Von Carlowitz, Winston; **McMath, Arden**; Pugh, Rachel; Timmerman, Kyle. Cardiovascular, Metabolic, And Perceived Effort In A Simulated Commute On A Regular And Electric Bicycle. *Medicine & Science in Sports & Exercise* 51.Supplement (2019):774. Web.

Mark Walsh, Eric Slattery, **Arden McMath**, Joshua Haworth. Training history constrains postural sway dynamics: a study of balance in collegiate ice hockey players. Accepted for publication in *Gait and Posture* Sept 2018.

McMath, A., Mize, M., Haworth, J., Walsh, M. (2018). Effects of Resistive Preloading in trained and Untrained Individuals. Oral presentation Feb 2018 at the mid-south meeting of the American Society of Biomechanics, Memphis, TN.

McMath, A., Slattery, E., Waxman, J., Walsh, M (2017). Medial vs Lateral Hamstring Innervation strategies. Poster presentation Nov 2017 at the Midwest meeting of the American College of Sports Medicine, Grand Rapids, MI.

Claiborne, A., Walsh, M., Alessio, H., Slatterly, E., **McMath, A.** (2017). Heart Rate Variability Response to Altitude Exposure in College-Aged Students in Nepal.

RESEARCH EXPERIENCE

Body Composition and Nutritional Neuroscience Laboratory August 2019- present

PI: Naiman Khan, Ph.D., R.D.

- Manage and assist with data collection on studies involving subjects from 4- 60 years old, focusing on nutrition, physical activity & fitness, body composition, gut microbiome, and cognition

Donovan Laboratory August 2019- present

PI: Sharon Donovan, Ph.D., R.D.

- Assist with data collection, analysis and manuscript development for STRONG Kids 2: A Cell-to-Society Approach

Graduate Research Assistant August 2018-May 2019

Miami University, Oxford

- Cosmed data collection for Cardiovascular, Metabolic, and Perceived Effort While Riding a Regular and Electric Bicycle. *Research Supervisor:* Helaine Alessio, Ph.D.
- HRV, VO₂, and spirometry testing of students on Himalayan Mountain trek. *Research supervisor:* Mark Walsh, Ph.D.

Undergraduate Research Assistant Aug 2014-May 2018

- Research on Balance and Footedness. *Research supervisor:* Mark Walsh, Ph.D.
- Miami University Hockey team Research Assistant.
- Patellar Pain Syndrome. *Research supervisor:* William Berg, Ph.D.
- Screening athletes with isokinetic dynamometer, force plate, motion capture, Vo₂ max and Wingate testing. *Research supervisor:* Ronald Cox, Ph.D.
- HRV testing of students and Nepali men on Himalayan Mountain trek and in Iceland. *Research supervisor:* Mark Walsh, Ph.D.

TEACHING EXPERIENCE

Graduate Teaching Assistant August 2018-May 2019

- Introduction to Exercise Physiology labs
- Physical Activity Life Skills Courses

Miami University H.A.W.K.S. Peer Health Educator January 2015-May 2018

- Health Advocate for Wellness, Knowledge and Skills
- Manage, develop, and facilitate programs and campaigns on various student health and wellness topics

PROFESSIONAL ORGANIZATIONS

Academy for Nutrition and Dietetics Member 2017-present

Nutritional Sciences Graduate Student Association at UIUC August 2019-present
Steering Committee: Media Chair (2019-2020)

AWARDS AND HONORS

Recipient of the USDA-NFF funded Nutrition & Gut-Brain Axis Fellowship August 2019- 2022

Miami University Thesis and Dissertation Research Support October 2018
 Amount: \$300
 Funds were awarded for *Associations between physical activity levels, insulin resistance and Adiponectin/Leptin ratios in older adults* master's thesis project

Miami University Undergraduate Research Award October 2018
 Amount: \$1000
 Led a team of undergraduate research assistants to secure funds awarded for *Associations between physical activity levels, insulin resistance and Adiponectin/Leptin ratios in older adults* project

RESEARCH TECHNIQUES

- SPSS
- MATLAB
- Nutrition Data System for Research (NDSR)
- Macular Pigment Optical Density (MPOD) for adults and children
- Dual-Energy X-Ray Absorptiometry (DXA)
- Optical Coherence Tomography (OCT)
- Electroencephalography (EEG)
- Metabolic Cart (standard and portable): VO2 max testing, RMR
- Isokinetic Dynamometer
- Motion capture
- Force plate
- Enzyme-Linked Immunosorbent Assay (ELISA)

REFERENCES

Naiman Khan, Ph.D., R.D.	217-300-2197	nakhan2@illinois.edu
Sharon Donovan, Ph.D., R.D.	217-333-2289	sdonovan@illinois.edu
Mark Walsh, Ph.D.	513-529-2708	walshms@miamioh.edu