

Ashley M. Mulchrone

amulchrone@wisc.edu | (763) 257-2974

EDUCATION

Ph.D. in Biomedical Engineering Expected May 2018

University of Wisconsin-Madison; Madison WI

Masters in Biomedical Engineering May 2015

University of Wisconsin-Madison; Madison WI GPA: 3.560/4.00

Bachelors in Biomedical Engineering May 2013

University of Wisconsin-Madison; Madison WI GPA: 3.496/4.00

TEACHING EXPERIENCE

Phys 335, Physiology, Teaching Assistant Sept. 2013-May 2015

- Lead discussions facilitating student learning and problem solving skills
- Assisted instructor in running laboratory activities and grading
- Maintained administrative feedback system through collaboration with instructors

Phys 335, Physiology, Study Group Leader Jan. 2012-May 2013

- Facilitated small study group problem solving discussions related to human physiology
- Mentor students and provide helpful study tips and strategies

GRADUATE SCHOOL RESEARCH

Vascular Tissue Biomechanics Laboratory, University of Wisconsin Sept. 2013-Present

- Designed and constructed a cardiac ablation catheter capable of delivering an in-vivo thermal insult to a mouse/rat cardiac valve
- Analyzing hemodynamic and cardiac function data using appropriate statistical tests and outlier methods

ENGINEERING EXPERIENCE

ProMed Molded Products, Plymouth, MN May 2011-Aug. 2013

(Summer and Winter breaks)

- Lead a six sigma/lean manufacturing project to reduce operation costs
- Computed statistical data using Minitab for product analysis
- Aided in the manufacturing of FDA clinical trial components/devices

St. Mary's – Department of Family Medicine, Madison, WI Aug. 2012-May 2013

- Designed a realistic silicone model of a uterus and placenta
- Improved doctor competence and confidence levels in the manual extraction of the placenta through magnetic field sensors and a visual color map

- Designed a dynamic beam attenuator for CT scans
- Reduced patient X-ray dosage temporally and spatially
- Improved image quality and signal-to-noise-ratio

PEER REVIEWED PUBLICATIONS

- **Mulchrone A**, Forouzan O, Hacker T, Consigny D, Bates, M, Kellihan H, Chesler NC, “Impact of Chronic Pulmonary Embolization on Arterial Stiffening” (In preparation)
- **Mulchrone A**, Shokouejinejad M, Webster J, “A review of preventing central sleep apnea by inspired CO₂” *Physiological Measurement* 37 (5): R36-R45 (2016)

CONFERENCE PRESENTATIONS AND POSTERS (*Presenting Author)

- ***Mulchrone A**, Forouzan O, Hacker T, Consigny D, Bates, M, Kellihan H, Chesler NC, “Impact of Chronic Pulmonary Embolization on Arterial Stiffening” 2016 Biomedical Engineering Society Conference (In preparation)
- ***Mulchrone A**, Brace C, Hacker T, Chesler NC, “Inducing valvular regurgitation in mice via thermal ablation of cardiac valves” 2014 Engineering in Medicine and Biology Society (Poster)