# Megan G. White

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## Education

University of Michigan, Ann Arbor, MI

M.S.E May 2017 Major: Biomedical Engineering Concentration: Medical Product Development

B.S.E May 2016 Major: Biomedical Engineering Concentration: Biochemical Minor: Music GPA: 3.61/4.00

# **Work Experience**

Lab Manager, Research Intern, Laboratory of Cellular and Molecular Systems

May 2015 - Sept. 2016

- Implement cell culture and microscopy techniques to observe cell migration, polarization, signaling via protein expression.
- Organize and purchase lab supplies, and maintain stable cell line cultures and stocks.

Custodial Staff, Dr. Percy McDonald, MD

May 2013 -- Present

Optimize sanitation and organization of patient environment by performing assigned tasks with a partner.

# **Project Experience**

# **Facial Treatment for Atopic Dermatitis in Infants**

Sept. 2016 – Present

# Improving Pinching in Multiple Sclerosis

Jan. – Apr. 2016

- Designed and fabricated prototype to provide sensory feedback to optimize pinch grip in multiple sclerosis patients.
- Developed Arduino coding for system to provide accurate feedback for various levels of force generation.

## **Myoelectric Control of Common Devices**

Sept. – Dec. 2015

• Designed conditioning circuit and LabVIEW interface to control operation of simulated light, fan, and thermostat by EMG.

## Tensile Strength of Heat-Treated Human Hair

Mar. – April 2015

Designed a material-testing assay to observe changes in hair tensile strength when heat-treated. Presented poster.

#### SynCardia Total Artificial Heart

Sept. - Dec. 2012

• Researched history, material properties, operation, and potential flaws of device. Compiled results into award-winning report.

# **Leadership and Involvement**

Co-Director, Pilgrim Lutheran Church Vacation Bible School

May 2012 – Present

- Organize volunteer and participant sign-ups, item donations, and daily schedules.
- Purchase required materials, publicize event, and help with set construction.

Worship Musician, Lord of Light Lutheran Church, Zion Lutheran Church

2012 - Present

Perform vocal and instrumental music to enhance worship experience weekly while improving musicianship skills.

## Corporate Information Sessions Officer, Society of Women Engineers

Aug. 2015 - Apr. 2016

- Recruit volunteers for SWE Corporate Information Sessions via Google Forms and Spreadsheets.
- Maintain communication with students through up-to-date announcements and email correspondence.

#### Peer Minister, Webmaster, Intersection LCM

2013 - 2016

Plan events, interact with UM community, and design and maintain user-friendly, interactive website to increase involvement.

#### Technical Skills

Arduino, Western Blot, PCR, ImageJ, CellTracker, LabVIEW, Microsoft Office, cell culture, microscopy, data analysis, technical writing

## **Awards and Honors**

Stilettos to Steel Toes Essay Contest Winner: University of Michigan – Awarded by Schlumberger

Society of Women Engineers Schlumberger Scholarship – Awarded by SWE at the University of Michigan

**Yoder Scholarship** – Awarded by Lord of Light Lutheran Church, Ann Arbor MI

Landes Prize for Technical Communication Honorable Mention – Awarded by University of Michigan

## **Publications**

Ostrowski AK, Bette N, **White MG**, Chen E, Cockrum J, Gosbee J, Schmedlen R. Multiple Sclerosis Sensory Feedback Device to Improve Pinch Grip. Poster presented at Biomedical Engineering Society Annual Meeting; 2016 Oct 5-8; Minneapolis, MN.

Rosselli-Murai LK, Yates JA, **White M**, Prisby J, Tan X, Wu ZF, Merajver S, Liu AP. The tumor suppressor PTEN: linking endocytosis to signaling in breast cancer cells. Poster presented at American Society for Cell Biology Annual Meeting; 2015 Dec 12-16; San Diego, CA.