

EMILY HALEY

PREFERRED NAME: EMERY

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Van Andel Institute Graduate School
333 Bostwick Ave NE,
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EDUCATION

- | | | |
|------------|---|---------------|
| BS | University of Alabama at Birmingham, Neuroscience
Graduated from Science and Technology Honors Program
Minored in Chemistry
GPA 3.90 | December 2016 |
| PhD | Van Andel Institute Graduate School
Cellular, Molecular, and Genetic Biology
GPA 3.80 | 2022 |

RESEARCH EXPERIENCE

- 1. Graduate Student Researcher**, VAI, Grand Rapids, MI 2017-Present
Lab of Dr. Juan Du
 - Experience solving membrane ion channel protein structures using CryoEM
 - Experience with patch clamp electrophysiology
- 2. Research Technician**, UAB, Birmingham, AL 2016-2017
Lab of Dr. Timothy Kraft
 - Experience with electroretinogram recordings from mice using a proprietary software
 - Experience with OCT imaging of mouse retina and OKN oculomotor reflex testing in mice
- 3. Honors Thesis and Lab Management**, UAB, Birmingham, AL 2013 to 2016
Lab of Dr. John J. Shacka
 - Experience in cellular and molecular biology including cell culture
 - Experience maintaining a mouse colony including multiple transgenic lines by breeding and genotyping
 - Experience writing grant proposals and writing and reviewing journal articles

TEACHING EXPERIENCE

- 1. VAI**, Grand Rapids, MI August 2017 to Present
Guided Educational Tour Leader, Van Andel Education Institute

- Led tours for primary and secondary students and teachers comparing their hands-on problem-based-learning science courses to the day-to-day research conducted at the research institute. Discussed current biomedical research in lay-terms.
- 2. UAB, Birmingham, Al** August 2015 to December 2015
Teaching Assistant, Science and Technology Honors Program
- Mentored 3 “project groups” for a service learning course
- 3. UAB, Birmingham, Al** August 2014 to December 2014
Research Liaison, Science and Technology Honors Program
- Gave a guided introduction to academic writing and research poster presentations to a student group

PUBLICATIONS

First Author

- Haley ED, Tse TE, Shacka JJ. Enhancing activity of alpha-Galactosidase A accelerates the clearance of alpha-synuclein. *Inquiro*. 2016.

Other

- Nelson, M. P., et al. (2018). "The lysosomal enzyme alpha-Galactosidase A is deficient in Parkinson's disease brain in association with the pathologic accumulation of alpha-synuclein." *Neurobiol Dis* 110: 68-81.

PRESENTATIONS

- **Poster and Oral Presentations**, “Examining the Regulation of Alpha – synuclein by Alpha-Galactosidase A in Parkinson Disease,” National Undergraduate Research Symposium, July 14-17, 2016.
 - Oral presentation won First Prize (perfect score)
- **Poster Presentation**, “Examining the Reciprocal Relationship of Alpha – synuclein and Alpha-Galactosidase A in Parkinson Disease,” National Council on Undergraduate Research Conference, April 7-9, 2016.
- **Poster Presentation**, “Examining the Regulation of Alpha – synuclein by Alpha-Galactosidase A in Parkinson Disease,” UAB Expo, July 24, 2015.

PROFESSIONAL TRAINING

- **National Undergraduate Research Symposium**
St. Jude, Memphis, TN July 14-17, 2016
- **National Council on Undergraduate Research Conference**
Asheville, NC, April 7-9, 2016
- **Interfaith Dialogue**
UAB Student Multicultural and Diversity Council, Birmingham, AL, August 2015 to December 2015

Attended weekly meetings to learn about the process of dialogue and about religious differences and oppression. The goal was to create an open environment in which representatives of many religions could discuss strategies to facilitate interfaith communications on campus.

- **Yoga as Medicine**
UAB School of Medicine, Birmingham, AL, August 3, 2015 to August 7, 2015
Attended weeklong workshop on the practice of Yoga as it relates to medicine.
- **Southeastern Medical Scientist Symposium**
Birmingham, AL, October 26-27, 2013

HONORS AND AWARDS

Oral Presentation First Prize , NURS, St. Jude	2016
UAB Presidential Honor Roll (4.0 GPA)	2013-2014, 2016
UAB Summer in Biomedical Science Program (SIBS) , Birmingham, AL Undergraduate Fellowship , Dr. John J. Shacka	2015

PROFESSIONAL AFFILIATIONS

- YouAB Learning, 2014-Present
 - Advisor, 2016
 - President, 2015-2016 – Managed Children’s Hospital Volunteer tutors; Organized Leadership workshop for Middle Schoolers; Organized ACT workshop for High Schoolers in the Birmingham area
 - Vice President, 2014-2015
 - Jr. Founder and Publicity Officer, 2013-2014 – helped to complete all requirements for becoming an official organization including writing a constitution, business plan, and budget; publicized organization by creating a website and social media pages as well as posting flyers to recruit volunteers
- Society of Neuroethics, 2016 - Present
- Phi Kappa Phi academic honor society, 2016
- Undergraduate Neuroscience Society, 2015-2016
- Sigma Alpha Pi (National Society of Leadership and Success), 2015-2016
- Alpha Lambda Delta (ALD) academic honor society, 2015-2016
- Alpha Epsilon Delta (AED) pre health honor society, 2014-2016
- American Chemical Society, 2013-2015
- Student affiliates of the American Chemical Society (SAACS), 2013-2014
 - Publicity Chair – flyers, email and social media advertisement

COMMUNITY SERVICE

- **Team Hope Walk for Huntington's Disease**
Volunteer, Birmingham, AL, April 2, 2016
- **Brain Awareness Week**
Volunteer, Birmingham, AL and Grand Rapids, MI, 2016 and 2017
A nationwide effort organized by the Dana Alliance for Brain Initiatives and the Society for Neuroscience to promote the public and personal benefits of brain research.
- **Children's Hospital of Alabama Emergency Department**
Volunteer, Birmingham, AL, July 2014 to December 2014

REFERENCES

Dr. Juan Du, Assistant Professor
Center for Cancer Biology
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Dr. Timothy Kraft, Professor and Chair
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