

**Jacob B. Harth, Ph.D.**  
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## **Academic History**

### **Education**

**University of Georgia, Athens, GA**  
Doctor of Philosophy, Neuroscience  
Graduation: May 2024

- Interdisciplinary Neuroscience PhD Program
- Neuroscience Graduate Student Association
  - Member of executive board (2021 – 2023)
  - Officer for professional development and outreach (2022 – 2023)
- Member of Advocates for Anti-Racism in the Life-Sciences (AARLS)
- Member of Nu Rho Psi Honor Society
- Member of Phi Kappa Phi Honor Society
- Graduate student member of Vision Sciences Society (VSS)

**Millsaps College, Jackson, MS**  
Bachelor of Science  
Graduation: May 2020

- Double Major: Psychology, Neuroscience & Cognitive Studies
- Graduated *summa cum laude*
- Member of Phi Beta Kappa Honor Society
- Chapter President of Nu Rho Psi Honor Society
- Member of Psi Chi Honor Society
- Presidential Scholar and Robinson Fellow
- Recipient of the Mary Whiton Calkins Award for Outstanding Research in Psychology (2020)

### **Academic Positions**

#### **Assistant Research Scientist**

Jul. 2024 – Present

University of Georgia, Institute of Gerontology, College of Public Health

- Develop and refine novel methods of testing sensory function

- Complete study design, data collection/reporting, and manuscript preparation for vision science clinical trials
- Mentoring and supervising undergraduate research assistants taking GRNT 4960R

**Graduate Research Assistant**

Jan. 2021 – May 2024

University of Georgia, Institute of Gerontology, College of Public Health

- Principal Investigator: Dr. Lisa M. Renzi-Hammond
- Develop and refine novel methods of testing visual function
- Complete study design, data collection/reporting, and manuscript preparation for vision science clinical trials
  - Alcon Laboratories
    - 2020 – 2021, Safety and benefit assessment of yellow filters on visual function
  - Johnson and Johnson Vision Care, Inc.
    - 2021 – 2023, Visual performance of senofilcon A with and without new UV/HEV
    - 2021 – 2023, Evaluation of multifocal and spherical soft contact lens designs with and without HEV blocker on visual function
    - 2021 – 2024, The effects of light filtration via contact lenses on novel metrics of visual function
    - 2022 – 2024, Determining the action spectra of glare in habitual contact lens wearers
  - Transitions Optical
    - 2022 – 2023, Using photochromic spectacle lenses to attenuate light stress in adults
- Mentoring and supervising undergraduate research assistants
  - Collaboratively learn to enable the advancement of skills relevant to psychophysical and other scientific investigations
  - Aid in professional development and discernment of career goals

**Undergraduate Research Assistant**

Jan. 2018 – May 2020

Millsaps College, Psychology Department

- Principal Investigator: Dr. Sabrina N. Grondhuis
- Designed and conducted an investigation into motivation in professional athletes
- Collaborated with fellow researchers on data collection and entry

<b>Instruction</b>
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**Faculty Mentor for Undergraduate Research**

University of Georgia, College of Public Health, Institute of Gerontology

Student name	Degree program(s)	Course	Semester
Etienne Choquart	Biomedical Physiology	GRNT 4960R	Fall 2024
Abby Dunham	Chemistry	GRNT 4960R	Fall 2024
Deeya Khanwani	Psychology	GRNT 4960R	Fall 2024

Amelia Preston	Biochemistry and Molecular Biology; Chemistry	GRNT 4960R	Fall 2024
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### Guest Lecturer

September 2024

University of Georgia, Psychology Department

- Delivered a lecture on the perception of color to undergraduate Sensation and Perception course (PSYC 4120)

### Graduate Lab Assistant

Jan. 2021 – May 2021

University of Georgia, Biology Department

- Orchestrated scientific investigation through instruction and assessment for an inquiry-based hybrid online and in-person lab for undergraduate biology majors (BIOL 1107L)

### Ford Fellow

Aug. 2018 – May 2019

Millsaps College, Psychology Department

- Lectured students, outlined class curriculum, and graded assignments as a fellow to Dr. Sabrina N. Grondhuis in Statistics for the Behavioral Sciences (PSYC 2100)
- Administered questionnaires and analyzed data on teaching methodology

### Teaching Assistant

Aug. 2017 – May 2018

Millsaps College, Chemistry Department

- Coordinated and supervised an inorganic chemistry lab (CHEM 1221) with Dr. Cory Toyota

<b>Mentorship</b>
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### Supervision and Mentorship of Undergraduate Research Assistants

- while serving as graduate research assistant

Student name	Degree program	Semesters
Cameron Wysocky	Psychology	Spring 2022
Nadia Talebi	Biology	Fall 2022
Caleb Lindman	Biology	Fall 2022
Zachary Carter	Psychology	Fall 2022, Spring 2023
Amelia Peach	Psychology	Spring 2023
George Gramling	Psychology	Spring 2023
Samantha Hoge	Psychology	Spring 2023
Zachary Roe	Biology	Spring 2023, Fall 2023
Spencer Smith	Psychology	Fall 2023
Adrian Bozoea	Biomedical Engineering	Fall 2023, Spring 2024
Claire Sheppard	Health Promotion	Fall 2023, Spring 2024

## Poster Presentations at University Undergraduate Conference

- Talebi, N., Reina, A.M., **Harth, J.B.**, Gardner, C., Renzi-Hammond, L.M. (2023, April 3). *Examining the relationship between macular pigment optical density (MPOD) and blood pressure* [Poster presentation]. University of Georgia 2023 CURO Symposium, Athens, GA.

## Scholarly Activities

### Manuscripts

#### Peer-Reviewed Publications

- **Harth, J. B.**, Renzi-Hammond, L. M., & Hammond, B. R., (2023). A dietary strategy for optimizing the visual range of athletes. *Exercise and Sport Sciences Reviews*, 51(3), 103–108. <https://doi.org/10.1249/JES.0000000000000318>

#### Published Abstracts

- **Harth, J. B.**, Renzi-Hammond, L. M., & Hammond, B. R. (2024, September). A blue-light absorbing lens improves visual function under bright light conditions in pseudophakic patients. [Published abstract, see oral presentations]. In *Journal of Vision* 24 (10): 643. <https://doi.org/10.1167/jov.24.10.643>
- Hammond, B. R., **Harth, J. B.**, & Renzi-Hammond, L. M. (2023, July). Functional effects of macular pigment density on the central nervous system [Published abstract, see oral presentations]. In *An Interdisciplinary Journal of Research on Carotenoids*, 25, 90.
- Nightingale, J., **Harth, J. B.**, Gardner, C., Leathers, T., Rogers, A., Hammond, B. R., & Renzi-Hammond, L. M. (2023, April). Implementation of technology to measure health biomarkers in underserved rural and eldercare settings [Published abstract, see poster presentations]. In *2023 ABM Annual Meeting Abstracts Supplement, Annals of Behavioral Medicine*, 57(1), S304. <https://doi.org/10.1093/abm/kaad011>
- Nightingale, J., **Harth, J. B.**, Gardner, C., Leathers, T., Rogers, A., Hammond, B. R. & Renzi-Hammond, L.M. (2022, November). Measuring ocular health and diet quality in diverse populations, in community settings [Published abstract, see poster presentations]. In *APHA 2022 Annual Meeting and Expo*. American Public Health Association.

#### Manuscripts in Preparation

- **Harth, J. B.**, Wysocky, C. J., Hammond, B. R., & Renzi-Hammond, L. M. (in preparation). Effects of spectacle filtering on glare discomfort and photostress recovery.

- Hammond, B. R., **Harth, J. B.**, & Renzi-Hammond, L. M. (in preparation). A blue-light absorbing lens improves visual function under bright light conditions in pseudophakic patients.
- **Harth, J. B.**, Renzi-Hammond, L. M., Wysocky, C. J., Smith, S. F., & Hammond, B. R. (in preparation). An ecologically valid characterization of the lower threshold of motion.

## Presentations

### Oral Presentations \*indicates an invited talk

- \*Hammond, B. R., **Harth, J. B.**, & Renzi-Hammond, L. M. (2023, July 9-14). *Functional effects of macular pigment density on the central nervous system* [Invited lecture]. The 19<sup>th</sup> International Symposium on Carotenoids, Toyama, Japan.

### Poster Presentations \*indicates first or co-presenter

- Hammond, B. R., Buch, J., Martin, P., Nembrini, S., **Harth, J. B.**, Wysocky, C. J., Renzi-Hammond, L. M. (2024, November 8). *The effects of a HEV-filtering contact lens on the brightness of natural images* [Accepted poster presentation]. 2024 American Academy of Optometry, Indianapolis, IN.
- Hammond, B. R., Buch, J., Martin, P., Nembrini, S., **Harth, J. B.**, Wysocky, C. J., Renzi-Hammond, L. M. (2024, November 7). *Peak contrast sensitivity measured under blue haze conditions is improved through the addition of a HEV-filtering additive to soft contact lens* [Accepted poster presentation]. 2024 American Academy of Optometry, Indianapolis, IN.
- Talebi, N., Reina, A., **Harth, J. B.**, Gardner, C., & Renzi-Hammond, L. (2024). *Examining the association between blood pressure, macular pigment optical density, serum potassium, and cognitive speed in middle-aged overweight adults* [Poster presentation]. 3rd Annual Savannah River Eye Meeting, Augusta, GA.
- \***Harth, J. B.**, Renzi-Hammond, L. M., & Hammond, B. R. (2024, May 19). *A blue-light absorbing lens improves visual function under bright light conditions in pseudophakic patients* [Poster presentation]. 2024 Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
- Nightingale, J., \***Harth, J. B.**, Gardner, C., Leathers, T., Rogers, A., Hammond, B. R., & Renzi-Hammond, L. M. (2023, April 27). *Implementation of technology to measure health biomarkers in underserved rural and eldercare settings* [Poster presentation]. Society of Behavioral Medicine 2023 Annual Meeting and Scientific Sessions, Phoenix, AZ.
- Wysocky, C., Bozocca, A., **Harth, J. B.**, Putnam, B., Hammond, B. R., Renzi-Hammond, L. M. (2022, November 12). *The relation between contrast sensitivity and macular pigment optical density* [Abstract presentation]. Georgia Undergraduate Research Conference, Valdosta, GA.
- Nightingale, J., \***Harth, J. B.**, Gardner, C., Leathers, T., Rogers, A., Hammond, B. R., & Renzi-Hammond, L. M. (2022, November 6). *Measuring ocular health and diet*

*quality in diverse populations, in community settings* [Poster presentation]. American Public Health Association 2022 Annual Meeting and Expo, Boston, MA.

- **\*Harth, J.B.**, Nightingale, J., Gardner, C., Leathers, T., Rogers, A., Hammond, B.R., & Renzi-Hammond, L.M. (2022, October 27). *Measuring MPOD as a biomarker in community settings* [Poster presentation]. State of the Public's Health 2022 Conference, University of Georgia, Athens, GA.
- **\*Harth, J.B.** & Grondhuis, S.N. (2020, April 1-4). *Monetary motivational theory in major league baseball* [Poster presentation]. Southeastern Psychological Association 66<sup>th</sup> Annual Meeting, New Orleans, LA. (Online Repository).
- Hawkins, B., Swinney, M., Maddox, S., Blady, S., **Harth, J.B.**, & Grondhuis, S.N. (2020, April 1-4). *The effects of stress, anxiety, and gender: Memory differences for emotional and neutral material in college students* [Poster presentation]. Southeastern Psychological Association 66<sup>th</sup> Annual Meeting, New Orleans, LA. (Online Repository).
- Blady, S., **Harth, J.B.**, Hawkins, B., Maddox, S., Pullman, N., & Grondhuis, S.N. (2020, February 7). *Comparison of management style preferences* [Poster presentation]. Millsaps Student Science Research Symposium, Jackson, MS.
- Swinney, M., Taylor, M., **Harth, J.B.**, Maddox, S., & Grondhuis, S.N. (2019, April 11-13). *Problematic mobile phone usage and its association with psychological consequences* [Poster presentation]. National Conference on Undergraduate Research, Kennesaw, GA.

### **Non-Peer-Reviewed Community Presentations**

- **Harth, J.B.** (2022, September 14-21). *Guest lecture series on TBI, neuroimaging, and brain health* [Guest lecturer]. International Baccalaureate Psychology, Saint Andrew's School, Boca Raton, FL.
- **Harth, J.B.** (2022, April 1). *Brain health is for everyone: invest in the fundamentals* [Presenter]. TEDxUGA Wonder, Athens, GA. <https://youtu.be/OZOOPINq9pM>

### **Grants Awarded**

- National Eye Institute Early Career Scientist Travel Grant; 2024 Annual Meeting of the Vision Sciences Society, St. Pete Beach, FL.
- University of Georgia Graduate School Domestic Travel Grant; 2022 American Public Health Association Annual Meeting and Expo, Boston, MA.

### **Selected Press and Media**

- Featured in *Optometry Today*, "Could a colourful diet improve the visual range of athletes?" June 12, 2023
- Featured in post on National Eye Institute (NEI) LinkedIn, June, 2023
- Featured on neurosciencenews.com, "Colorful foods for enhanced visual range." June 8, 2023
- Featured in *UGA Today*, "Colorful foods improve athletes' vision." June 8, 2023

- Harth et al. (2023) publication (<https://doi.org/10.1249/JES.0000000000000318>) featured in over forty other news outlets (see Wolters Kluwer, Altmetric: <https://wolterskluwer.altmetric.com/details/148773364/news>)