

# Megan Corena Hall

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*Motivated researcher with diverse experience in psychology and neuroscience interested in early detection and prevention of Alzheimer's disease and related dementias using multimodal neuroimaging, blood-based biomarkers, psychosocial and sociodemographic factors, and neuropsychological assessment*

## EDUCATION

Bachelor of Science in Psychology (Psychological Science), and Anthropology  
Certificates in Cross-Sector Leadership and Evolutionary Medicine  
Barrett, the Honors College; Arizona State University

May 2022

Cumulative GPA: 3.97/4.00, *summa cum laude*

Honors Thesis: The Effects of a Brief Exposure to Nature or Social Media on Psychological Well-Being

Thesis Advisors: Dr. Virginia S.Y. Kwan, Dr. William Corbin, Dr. Douglas Kenrick, and Dr. Samantha L. McMichael

## PEER-REVIEWED PUBLICATIONS

\*Contributed equally

1. **Hall, M.C.**, Rempe, M.P., Casagrande, C.C., Glesinger, R.J., Petro, N.M., Garrison, G.M., John, A.J., Dietz, S.M., Schantell, M., Bai, H., Arif, Y., Embury, C.M., Bashford, S., Okelberry, H.J., Petts, A.J., Keifer, E.L., May-Weeks, P.E., Picci, G., Heinrichs-Graham, E., & Wilson, T.W. (2025). Age-related alterations in alpha and beta oscillations support preservation of semantic processing in healthy aging. *NPJ Aging*. [PMc12328654](https://doi.org/10.1038/s41514-025-00263-8). <https://doi.org/10.1038/s41514-025-00263-8>
2. Silva, T.F., Hutchins, E., Zhao, W., Ciani, Y., Kim, M., Ko, E., Mariscal, J., Qiu, Z., Bedier, F., Kittel, A., Zhou, B., Wang, Y., **Hall, M.**, Galasso, F., Reiman, R., Freeman, M.R., Parker, S., Van Eyk, J., Yang, W., Posadas, E., Guarnerio, J., Nolan, J., Théry, C., Zijlstra, A., Stott, S., You, S., Demichelis, F., Boutros, P.C., Van Keuren-Jensen, K., & Di Vizio, D. (2025). Extracellular vesicles heterogeneity through the lens of multiomics. *Cell Reports Medicine*. [PMc11370325](https://doi.org/10.1016/j.xcrm.2025.102161). <https://doi.org/10.1016/j.xcrm.2025.102161>
3. Rami, F. Searight, H.R., Dryjanska, L. & **Hall, M.C.** (2025). Modern slavery and the United Nations Sustainable Development Goals. *Canadian Psychology/Psychologie Canadienne*. <https://doi.org/10.1037/cap0000429>
4. \***Hall, M.C.**, \*Rempe, M.P., Glesinger, R.J., Horne, L.K., Okelberry, H.J., John, J.A., Embury, C.M., Heinrichs-Graham, E., & Wilson, T.W. (2024). Oscillatory activity in bilateral prefrontal cortices is altered by distractor strength during working memory processing. *NeuroImage*, 301(120878). [PMc11531322](https://doi.org/10.1016/j.neuroimage.2024.120878). <https://doi.org/10.1016/j.neuroimage.2024.120878>
5. **Hall, M.C.**, McMichael, S.L., & Kwan, V.S.Y. (2023). Effects of a brief exposure to nature or social media on psychological well-being. *Modern Psychological Studies*, 29(1). <https://scholar.utc.edu/mps/vol29/iss1/3/>
6. Godfrey, R.K., Alsop, E., Bjork, R.T., Chauhan, B.S., Ruvalcaba, H.C., Antone, J., Gittings, L.M., Michael, A.F., Williams, C., Hala'ufia, G., Blythe, A.D., **Hall, M.**, Sattler, R., Van Keuren-Jensen, K., & Zarnescu, D.Z. (2023). Modelling TDP-43 proteinopathy in *drosophila* uncovers shared and neuron-specific targets across ALS and FTD relevant circuits. *Acta Neurological Communications*, 11(168). [PMc10588218](https://doi.org/10.1186/s40478-023-01656-0). <https://doi.org/10.1186/s40478-023-01656-0>

## BOOK CHAPTERS

1. **Hall, M.C.**, Venkataramanan, V., Collins, R.Y., & Li, E.A. (2025). Post-traumatic growth and emotional resilience in immigrants and refugees from Africa and the Middle East. In Mayer, C.H. & Vanderheiden, E. (Eds), *The international handbook of emotions*. Springer, Cham. [https://doi.org/10.1007/978-3-031-86445-2\\_12](https://doi.org/10.1007/978-3-031-86445-2_12)

2. **Hall, M.** (2023). COVID-19 testing, preventive measures, and ethical issues. In H.R. Searight (Ed.), *Covid-19 health disparities and ethical challenges across the globe*. Springer. [https://doi.org/10.1007/978-3-031-26200-5\\_9](https://doi.org/10.1007/978-3-031-26200-5_9)

### **MANUSCRIPTS IN-SUBMISSION**

1. **Hall, M.C.**, Picci, G., Rempe, M.P., John, J.A., Webert, L.K., Okelberry, H.J., Johnson, H.J., Horne, L.K., Willett, M.P., Glesinger, R.J., Rice, D.L., Coutant, A.T., Kress, K.A., Garrison, G.M., Bashford, S., Spooner, R.K., & Wilson, T.W. (under review at *GeroScience*). High-resolution MRI evidence for age- and sex-related changes in hippocampal subfield volume during healthy aging.
2. Rempe, M.R., Garrison, G.M., Springer, S.D., Glesinger, R.J., Petts, A.J., Horne, L.K., **Hall, M.C.**, Kress, K.K., DeLuca, K.R., Carusi, O.R., Volberding, L.D., Voller, M.E., Embury, C.M., Johnson, C.M., May-Weeks, P.E., & Wilson, T.W. (submitted to *Brain*). Altered oscillations in cortical attention systems predict cognitive deficits in Alzheimer's disease.
3. **Hall, M.C.**, Rempe, M.P., John, J.A., Garrison, G.A., Glesinger, R.J., Casagrande, C.C., Petro, N.M., Okelberry, H.J., Petts, A.J., Bai, H., Bashford, S., Dietz, S.M., May-Weeks, P.E., Taylor, B.K., Arif, Y., Heinrichs-Graham, E., Picci, G., Spooner, R.K., & Wilson, T.W. (under review at *Communications Biology*). Hippocampal and cortical oscillatory dynamics support semantic processing and performance.

### **MANUSCRIPTS IN-PREPARATION**

\*Contributed equally

1. \***Hall, M.C.**, \*May-Weeks, P.E., Rempe, M.P., Picci, G., Johnson, H.J., Schantell, M., Okelberry, H.J., Bashford, S., Glesinger, R.J., Horne, L.K., Rice, D.L., John, J.A., Coutant, A.T., Garrison, G.M., Kress, K.A., & Wilson, T.W. (in-prep). The interaction of hippocampal subfield volume and age on cognitive performance in healthy adults.
2. \***Hall, M.C.**, \*Arif, Y., Rempe, M.P., Petro, N.M., Okelberry, H.J., John, J.A., Garrison, G.M., Kress, K.A., McDonald, K.M., Picci, G., & Wilson, T.W. (in-prep). High-definition transcranial direct current stimulation (HD-tDCS) of the left primary motor cortices upregulates resting alpha power in the primary motor and association cortices in young compared to older adults.
3. **Hall, M.C.**, Rempe, M.P., John, J.A., Garrison, G.A., Glesinger, R.J., Casagrande, C.C., Okelberry, H.J., Petts, A.J., Bashford, S., Dietz, S.M., Arif, Y., Heinrichs-Graham, E., Picci, G., Spooner, R.K., & Wilson, T.W. (in-prep). Hippocampal theta dynamics and subfield volume associations.
4. Huang, P.J., Arif, Y., Schantell, M., Glesinger, R., Horne, L.K., Coutant, A.T., Okelberry, H.J., Ende, G., Garrison, G.M., De Luca, K.R., Carusi, O.R., **Hall, M.C.**, Volberding, L.D., Voller, M.E., John, J.A., & Wilson, T.W. (in-prep). Substance-related visual cues alter sensory gating in chronic methamphetamine users.
5. McDonald, K.M., Bai, H., **Hall, M.C.**, John, J.A., Morrow, L.T., Reinke, D.M., Webert, L.K., Glesinger, R.J., Rempe, M.P., Okelberry, H.J., DeLuca, K.R., Johnson, H.J., Horne, L.K., Willett, M.P., Garrison, G.M., Rice, D.L., Coutant, A.T., Kress, K.A., Bashford, S., Spooner, R.K., Picci, G., & Wilson, T.W. (in-prep). HIV-related atrophy of amygdala subnuclei volume and its associations with clinical disease metrics.
6. Bai, H., Picci, G., Ende, G.C., Rice, D.L., John, J.A., Coutant, A.T., Steiner, E.L., **Hall, M.C.**, Bashford, S., Glesinger, R.J., Okelberry, H.J., & Wilson, T.W. (in-prep). The impact of sex and socioeconomic disparities on hippocampal and amygdala subregion development during childhood.

### **HONORS AND SCHOLARSHIPS**

**APA Society Convention Research Award - \$300**

**Aug. 2022**

- *Psi Chi, the International Honor Society in Psychology and the APA Committee on Associate and Baccalaureate Education (CABE)*

**Division 52 Student Member APA Convention Registration Award - \$100**

**Apr. 2022**

- *APA Division 52 Student Committee*

<b>Nominated to Present Research for Oral Presentation Award - \$250</b>	<b>Aug. 2021</b>
- Translational Genomics Research Institute, a part of City of Hope and the Helios Education Foundation	
<b>Nominated for Research/Internship Gold Standard Award</b>	<b>May 2020</b>
- Barrett, the Honors College at Arizona State University	
<b>Dean's List</b>	<b>Dec. 2018-May 2022</b>
- Arizona State University	
<b>New American University Provost's Scholarship – Partial Tuition Remission</b>	<b>Aug. 2018</b>
- Arizona State University	

### **CONFERENCE SYMPOSIA, TALKS, AND DISCUSSIONS**

1. **Hall, M.C.** (2025, August). Systems theory in undergraduate psychology. In L. Dryjanska (Chair). *Transformative teaching about social justice issues: examples and reflections*. [Symposium]. Symposium presented at the American Psychological Association, Denver, CO.
2. Wan Isa, W.I., **Hall, M.**, & Easterling, A. (2024, June). *Culturally competent mental health support for Southeast Asia (SEA) and SEA immigrants*. [Co-led conference discussion and abstract]. Conference discussion at the Society for the Improvement of Psychological Science, Virtual.
3. **Hall, M.C.** (2023, March). COVID-19 highlights international health disparities. In H.R. Searight (Chair). *COVID-19 halts international progress on the United Nations' Sustainable Development Goals*. [Symposium]. Symposium presented at the fifth Benjamin V. Cohen Peace Conference, Virtual.
4. **Hall, M.C.**, Hutchins, E., Alsop, E., Reiman, R., Bilagody, C., Pilade, J., & Van Keuren-Jensen, K. (2021, August). *The hidden transcriptome in cerebrospinal fluid and an exploration of its role in Parkinson's disease*. [Oral presentation and abstract]. Oral presentation presented at the Helios Scholars Intern Symposium, Phoenix, AZ.

### **POSTER PRESENTATIONS**

1. **Hall, M.C.** (To be presented). Training the next generation: clinical neuropsychology training for post-baccalaureate researchers in a neuroscientific context. In P. May-Weeks (Chair). *The future of neuropsychology: global inclusion and collaboration*. [Poster Symposium]. Poster to be presented at the International Neuropsychological Society, Philadelphia, PA.
2. **Hall, M.C.**, Rempe, M.P., Picci, G., Johnson, H.J., Schantell, M., Okelberry, H.J., Bashford, S., Glesinger, R.J., Horne, L.K., Rice, D.L., John, J.A., Coutant, A.T., Garrison, G.M., Kress, K.A., May-Weeks, P.E. & Wilson, T.W. (2025, August). *The interaction of hippocampal subregion volume and age on cognitive functioning in healthy adults*. [Conference poster and abstract]. Poster session presented at the American Psychological Association, Denver, CO.
3. **Hall, M.C.**, Rempe, M.P., Picci, G., Embury, C.M., Casagrande, C.C., Arif, Y., Schantell, M., Bashford, S., Garrison, G.M., Glesinger, R.J., Okelberry, H.J., Petts, A.J., Keifer, E.L., May-Weeks, P.E., Heinrichs-Graham, E., Spooner, R.K., & Wilson, T.W. (2025, February). *Theta activity associated with verbal fluency above and beyond hippocampal volume*. [Conference poster and abstract]. Poster session presented at the International Neuropsychological Society, New Orleans, LA.
4. **Hall, M.C.**, Rempe, M.P., Embury, C.M., Casagrande, C.C., Arif, Y., Schantell, M., Bashford, S., Garrison, G.M., Glesinger, R.J., Okelberry, H.J., Petts, A.J., Keifer, E.L., Picci, G., May-Weeks, P.E., Heinrichs-Graham, E., & Wilson, T.W. (2025, February). *Verbal fluency changes with age and is mediated by conditional oscillatory differences in the left perisylvian*. [Conference poster and abstract]. Poster session presented at the International Neuropsychological Society, New Orleans, LA.
5. **Hall, M.C.**, Rempe, M.P., Embury, C.M., Casagrande, C.C., Arif, Y., Schantell, M., Bashford, S., Garrison, G.M., Glesinger, R.J., Okelberry, H.J., Petts, A.J., Keifer, E.L., Picci, G., Spooner, R.K., May-Weeks, P.E., Heinrichs-Graham, E., & Wilson, T.W. (2024, November). *Verbal fluency changes with age and theta-gamma phase-amplitude coupling*. [Conference poster and abstract]. Poster session presented at the National Academy of Neuropsychology, Austin, TX. <https://doi.org/10.1093/arclin/aca067.104>

6. **Hall, M.C.**, Hutchins, E., Bilagody, C., Reiman, R., Antone, J., Logemann, A., Cox, L., Palomares, D.M., Bitzah-Ray, F., & Van Keuren-Jensen, K. (2022, November). *An investigation into transposable elements in the transcriptomes of patients diagnosed with neurodegenerative disease and healthy controls in urine and plasma*. [Conference poster and abstract]. Poster session presented at the fifty-first annual convention of the Society for Neuroscience, San Diego, CA, United States.
7. **Hall, M.C.**, McMichael, S.L., Dryjanska, L., & Kwan, V.S.Y. (2022, August). *Effects of a brief exposure to nature or social media*. [Conference poster and abstract]. Poster session presented at the one-hundred and thirtieth annual convention of the American Psychological Association, Minneapolis, MN, United States.
8. **Hall, M.C.**, Hutchins, E., Alsop, E., Reiman, R., Bilagody, C., Pilade, J., & Van Keuren-Jensen, K. (2021, August). *The hidden transcriptome in cerebrospinal fluid and an exploration of its role in Parkinson's disease*. [Conference poster and abstract]. Poster session presented at the Helios Scholars Intern Symposium, Phoenix, AZ.
9. **Hall, M.C.**, McMichael, S.L. & Kwan, V.S.Y. (2021, February). *Familism maintains hope despite loss of relatedness to the future self during the COVID-19 pandemic*. [Conference poster and abstract]. Poster session presented at the twenty-second annual convention of the Society for Personality and Social Psychology, Virtual.

## **RESEARCH EXPERIENCE**

### **The Dynamic Imaging of Cognition and Neuromodulation Laboratory (DICO-N)**

**Omaha, NE**

#### **The Institute for Human Neuroscience at Boys Town National Research Hospital**

Supervisors: Dr. Tony Wilson, Dr. Maggie Rempé

Located in the Institute for Human Neuroscience, the DICO-N Lab is focused on the use of magnetoencephalography (MEG) for neuroimaging in cognitive aging including HIV/HAND and AD/MCI

*Research Assistant I*

*Oct. 2023-Present*

- Mentor research assistants in the process of structural MRI processing, data analysis, writing, and presenting their research
- Use statistical models including moderation analyses, linear mixed effects models, exploratory factor analyses, hierarchical regression, linear regression, structural equation modeling (SEM), virtual sensor analyses, and piecewise regression to analyze hippocampal subfield volumes, MEG data, inflammatory markers, and neuropsychological test scores
- Preprocess and coregister over 100 MEG and MRI scans using Brain Electrical Source Analysis (BESA) Software and MATLAB
- Create time-frequency spectrograms to represent neural oscillatory activity and complete whole-brain t-tests, correlations, and linear mixed-effects models using MATLAB
- Complete data visualization using R, Excel, MRICroGL and PowerPoint to represent whole-brain analyses, violin plots, timeseries graphs, and line graphs
- Write MATLAB scripts to automatically rename and reorganize files in their correct folder locations and for use in whole-brain analysis for subtracting, averaging, and running whole-brain linear mixed effects models with GIFTI files for use in Brainstorm and Statistical Parametric Mapping (SPM)
- Complete quality checks for over 400 high-resolution T1-weighted and T2-weighted MRIs and utilize FreeSurfer's automated pipeline, including hippocampal and amygdala subfield segmentation in order to gain precise information about hippocampal subfield volume
- Create formal teaching documents for future researchers to complete quality-checking of MRIs and subfield segmentation in FreeSurfer

### **Translational Genomics Research Institute (TGen), a part of City of Hope**

**Phoenix, AZ**

Supervisors: Dr. Kendall Van-Keuren Jensen, Dr. Eric Alsop, Dr. Elizabeth Hutchins

Previously located in the Neurogenomics department at TGen (now at the National Institutes of Health), this lab was focused on the characterization of RNA-seq across different biofluids, extracellular vesicles, and determining potential biomarkers for neurological disease using RNA in accessible biofluids

*Associate Bioinformatician*

*Jun. 2022-Aug. 2023*

- Analyzed long and smallRNA in various biofluids, such as plasma, urine, and cerebrospinal fluid, and in tissue samples from patients diagnosed with psychiatric/neurological diseases, including schizophrenia, AD/MCI, and Parkinson's disease (PD) in the format of heatmaps, stacked barplots, volcano plots, upset plots, waterfall graphs, PCA plots, and many other graphs
- Improved a bioinformatics pipeline through the addition of deeptools, umitools, and cutadapt functions which were previously utilized manually
- Compiled metadata from cognitive assessments for a dataset that includes patients diagnosed with AD/MCI, PD, ALS, FTD, and healthy controls

*Bioinformatics Intern*

*Aug. 2021-Jun. 2022*

- Coded the force of hits on football players' helmets for a collaborators' dataset
- Utilized UpSetR to create upset plots of transposable elements across different kits used to test water controls
- Uploaded data from healthy tissue samples to an open-source repository for exRNA to increase access to biological sample information for researchers
- Helped integrate two existing pipelines that use Jinja2 and slurm via jetstream to facilitate data processing and analysis
- Made heatmaps using z-scores using ComplexHeatmap to better illustrate findings from DESeq2 in both small RNA and bulk RNA

*Helios Scholar*

*Jun. 2021-Aug. 2021*

- Utilized existing GitHub repositories to create a pipeline that would run via jetstream with Jinja2 templates
- Used shell-scripting in BASH to navigate between computer nodes and submit jobs via slurm
- Conducted data analysis, mainly using DESeq2 from Bioconductor in R to complete biostatistical analyses of transposable elements
- Utilized pheatmap, EnhancedVolcano, ggplot2, and others to create graphs of transposable elements with R programming

## **Culture and Decision Science Network Laboratory**

**Tempe, AZ**

### **Arizona State University**

Supervisors: Dr. Virginia Kwan, Dr. Samantha McMichael, Dr. Cameron Bunker

Dr. Kwan's lab focuses on personality characteristics and interventions, cyberpsychology, and characteristics of personality applied to the temporal self; one of their major projects is the "Me in 10" project, a longitudinal study of Arizona State University students who began as freshmen in 2016; the study is gathering data on how youth view their future and how this impacts their current academic performance and mental health

*Research Assistant*

*Sep. 2019-Apr. 2022*

- Coded qualitative statements written by students to themselves ten years in the future, specifically on how vivid their depiction of their future is, resulting in further progress in research for a graduate student's thesis
- Utilized SPSS Statistics for correlation tables, moderation analyses, and ANOVA
- Led the development of an experimental design, data collection, analysis, and writing for an independent thesis

## **CLINICAL EXPERIENCE**

### **The Dynamic Imaging of Cognition and Neuromodulation Laboratory (DICO-N)**

**Omaha, NE**

### **The Institute for Human Neuroscience at Boys Town National Research Hospital**

Supervisors: Dr. Tony Wilson, Dr. Maggie Rempe

Located in the Institute for Human Neuroscience, the DICO-N Lab is focused on the use of magnetoencephalography (MEG) for neuroimaging in cognitive aging including HIV/HAND and AD/MCI

*Research Assistant I*

*Oct. 2023-Present*

- Conduct and score 42 full neuropsychological assessments for a total of 118 hours combined, including the WRAT4 – Word Reading, Logical Memory, Brief Visuospatial Memory Test - Revised (BVM-T-R), Stroop, Digit Span (forward, backward, and sequence), Grooved Pegboard, COWAT FAS and Animals, Letter Number Sequencing, Trail-Making Tests A and B, Hopkins Verbal Learning Test – Revised (HVLT-R), and Boston Naming Test
- Check and/or oversee 10 additional neuropsychological assessments for a total of 15 hours
- Conduct 18 full consents during which participants are guided through the process of joining an ongoing NIH funded R01 study

- Interact with AD/MCI, PD, and HIV patients and substance users (methamphetamine and/or cannabis) as part of NIH funded research studies
- Shadow nine full neuropsychological assessments, including two for diagnostic purposes led by a professional clinical neuropsychologist
- Shadow two Mini-Mental State Examination (MMSE) administrations and conduct one MMSE
- Obtain online certification to conduct the Montreal Cognitive Assessment (MoCA)
- Conduct three MoCAs

### **The Trevor Project**

**Virtual**

*Volunteer Counselor*

*Aug. 2023 – Present*

- Complete 10 weeks of training on engaging with LGBTQ+ youth, including suicidal ideation, self-harm, and harm reduction, and additional training as needed
- Speak with youth via text/chat and complete case records for 3 hours per week, totaling 223 hours thus far
- Document 233 case records detailing information about chats and completed 124 assessments for suicide risk
- Work collaboratively with youth who reached out to create a safety plan in case of suicidal ideation, for a total of 16 safety plans
- Collaborate with licensed counselors on child abuse, suicidal, and violent intent cases

### **ORGANIZATIONAL AFFILIATIONS**

#### **International Neuropsychological Society**

*Student Member*

*Jan. 2025-Present*

#### **Psi Chi, the International Honors Society in Psychology**

*Member*

*Dec. 2020-Present*

*Director of Community Outreach for Psi Chi at Arizona State University*

*May 2021-May 2022*

- Took charge of planning service events for Psi Chi at Arizona State University
- Considering the COVID-19 pandemic, planned both in-person and virtual service events to improve accessibility
- Worked with other members of the Psi Chi Board to create budgets for events and make events known via newsletters and social media

#### **American Psychological Association**

*Division 52: Society for Global Psychology Advocacy Committee*

*Mar. 2024-Present*

- Create goals for the newly created advocacy committee for Division 52
- Write a statement on the 2024 election in support of global communities
- Aid in writing a scientific article on human trafficking and the sustainable development goals

*Student Member*

*Apr. 2019-Present*

- Review submissions for the Student International Research Award and Anastasi Research Award to provide funding for students working on projects that are internationally focused
- Review submissions for the 2023 Division 45 student conference

*Division 52: Society for Global Psychology Handbook Committee*

*Dec. 2023-May 2024*

- Compiled information on various positions within APA Division 52 to form a new handbook meant to aid new leadership in the Division
- Interviewed current and past APA Division 52 leadership to gather more accurate information

*Division 52: COVID-19 Taskforce*

*Apr. 2019-Mar. 2023*

- Coded articles on COVID-19 and mental health from 30 countries for a literature review to increase advocacy and awareness of mental health worldwide in reaction to COVID-19; this research was utilized in the format of a symposium, research paper, and book

### **SCIENCE COMMUNICATIONS**

[Google Scholar](#), [ResearchGate](#), [GitHub](#), [LinkedIn](#), [Website](#), [Twitter](#), [Bluesky](#), [Mastodon](#)

#### **Knowing Neurons**

**Virtual**

*Website Team Member*

*Feb. 2025 – Present*

- Format and post blog articles on the Knowing Neurons website as needed
- Aid in the transition as another team member takes over as Chief Website Manager

- Engage with technical support and cybersecurity for the website as needed
- Chief Website Manager* *Jun. 2023 – Feb. 2025*
- Trained a current website team member to take over the role of Chief Website Manager
  - Helped with the integration of translated webpages in multiple languages
  - Created updated training videos on how to use WordPress and format articles
  - Implemented a more organized way of collaborating on many different projects within the Website Team
  - Interviewed and onboarded five new website team members
  - Wrote a blog post plainly explaining magnetoencephalography as a type of neuroimaging (available here: <https://knowingneurons.com/blog/2024/09/24/meg-neurosurgery/>)
  - Spoke about magnetoencephalography and neuroscience on the Knowing Neurons Podcast (available here: <https://open.spotify.com/episode/7891taUFGIU7YjGOd2iMgN?si=ac7ef43c9dc9431f>)
- Website Team Member* *Mar. 2023 – Jun. 2023*
- Added a hamburger menu and made certain blocks visible only on certain screen sizes to improve the user design experience and move towards responsive design
  - Reorganized website pages to improve navigability and accessibility

### **Letters to a Pre-Scientist**

**Virtual**

- STEM Pen Pal* *Jul. 2022 – May 2023; Oct. 2024 – May 2025*
- Utilized science communication skills including using interesting visuals and simple language to plainly communicate about neuroscience research with a “pre-scientist” in middle or high school
  - Specifically, exchanged four letters with a matched pre-scientist for each year of involvement

### **COMMUNITY OUTREACH**

#### **The Dynamic Imaging of Cognition and Neuromodulation Laboratory (DICO-N)**

**Omaha, NE**

#### **The Institute for Human Neuroscience at Boys Town National Research Hospital**

Supervisors: Dr. Tony Wilson, Dr. Maggie Rempe

Located in the Institute for Human Neuroscience, the DICO-N Lab is focused on the use of magnetoencephalography (MEG) for neuroimaging in cognitive aging including HIV/HAND and AD/MCI

*Research Assistant I*

*Oct. 2023-Present*

- Set up for and table at the annual Walk to End Alzheimer’s event in 2025
- Aid in tabling and teaching at various outreach events in the broader community to help inform and engage with the public about neuroscience and to recruit more diverse participants
- Volunteer at and attended the annual Walk to End Alzheimer’s event in 2024
- Provide support for educating older adults about the brain at the Intercultural Senior Center

#### **The Adolescent Health Project; Women’s Fund of Omaha**

**Omaha, NE**

*Youth Advisory Committee Member*

*Apr. 2024 – Aug. 2025*

- Aided in planning a youth leadership summit to bring together youth community members

*Volunteer Coresearcher*

*Aug. 2024 – Mar. 2024*

- Collaborated with others to design a photovoice project that would assess the barriers to obtaining sexual healthcare in Omaha and what could be done to improve access to sexual health services
- Assisted in facilitating four group interviews about sexual health access in the Omaha area
- Coded qualitative data from interviews and photos

### **Psychin’ Out**

**Virtual**

*Conference Volunteer*

*Jul. 2023*

- Drafted and edited emails to inform participants and presenters about the Psych for Peace and Justice conference
- Created virtual backgrounds in Canva to help make conference moderators and presenters apparent
- Facilitated communication and gathered materials from two presenters
- Moderated two conference sessions

### **TECHNICAL SKILLS**

Proficient: Canva Graphic Design; IBM SPSS Statistics; Qualtrics Surveys; Slurm Workload Manager; BASH/Shell scripting; MRICroGL; the following R (Programming) packages: tidyverse, dplyr, ggplot2, ggpubr, pheatmap, EnhancedVolcano, corplot, mediation, ggnewscale, stats, apaTables, segmented, qvalue, nlme

Intermediate: the following R (Programming) packages: ComplexHeatmap, UpSetR, DESeq2, lme4, lavaan, circlize; Git/GitHub; HTML; CSS; WordPress; MATLAB; BESA Software Suite; Freesurfer

### **CERTIFICATIONS**

- Human Subjects Social Sciences (Group 2) and Biomedical Sciences (Group 1) Certification
- Conflict of Interest Certification
- CPR/AED Certification
- MoCA Administration Certification

### **AUDITED GRADUATE COURSEWORK**

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- PHR 721: Systems Neuroscience (Creighton University)
- PHR 722: Theories & Advancements in Developmental Cognitive Neuroscience (Creighton University)
- PSYC 9010: Statistical Methods I (University of Nebraska – Omaha)
- PSYC 9020: Statistical Methods II (University of Nebraska – Omaha)