MEGAN HALL

Professional Networks: [Google Scholar](#), [ResearchGate](#), [GitHub](#), [LinkedIn](#), [Website](#)
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EDUCATION
Barrett, the Honors College
Arizona State University   **Aug. 2018-May 2022**
Psychology (Psychological Science), Bachelor of Science
Anthropology, Bachelor of Science
Certificate in Cross-Sector Leadership
Certificate in Evolutionary Medicine

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

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

RESEARCH EXPERIENCE
Translational Genomics Research Institute, a part of City of Hope,   **Phoenix, AZ**
Supervisors: Dr. Kendall Van-Keuren Jensen, Dr. Eric Alsop, Dr. Elizabeth Hutchins
This lab is in the Neurogenomics department and is 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-Present*
- Analyzing long and smallRNA in various biofluids, such as plasma, urine, and cerebrospinal fluid, and in tissue samples from patients diagnosed with neurological diseases, including schizophrenia, Alzheimer's disease, and Parkinson's disease 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
- Compiled metadata from cognitive assessments for a dataset that includes patients diagnosed with Alzheimer's disease, Parkinson's disease, 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 DESeq2 from Bioconductor, in R/RStudio to complete biostatistical analyses of transposable elements
- Utilized pheatmap, EnhancedVolcano, ggplot2, and others to create graphs of transposable elements in R/RStudio

Culture and Decision Science Network Lab, **Tempe, AZ**
Arizona State University
Supervisors: Dr. Virginia Kwan, Samantha McMichael, Dr. Cameron Bunker
This lab is related to 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 them
Research Assistant, *Sep. 2019-Apr. 2022*
- Coded qualitative statements written by students to themselves in ten years, specifically on how vivid their depiction of their future is, resulting in further progress in research for a graduate student's project
- Utilized SPSS Statistics for correlation tables, moderation analyses, and ANOVA
- Developed an experimental design and manipulation that utilized a survey via Qualtrics, and collected data using an online platform called Amazon Mechanical Turk for an independent thesis

Memory, Attention, and Control Lab (MAC Lab), **Tempe, AZ**
Arizona State University
Supervisors: Dr. Gene Brewer, Caleb Jerinic-Brodeur
Research in this lab focuses on memory and attention through data such as EEG, pupillometry, and other types of cognitive research
Research Assistant, *Mar. 2022-Apr. 2022*
- Helped with pupillometry data collection for value-based memory and learning
- Read participants' instructions for tasks and ensured they understood the task
- Set up the computers for each participant with preprogrammed tasks that used PsychoPy and/or Gazepoint
- Provided participants with credit for their participation on SONA systems

Evolution, Ecology, and Social Behavior Lab, **Tempe, AZ**
Arizona State University
Supervisors: Dr. Steven Neuberg, Dr. Douglas Kenrick
Research in this lab uses social psychology from an evolutionary viewpoint. Hypotheses are drawn from anthropological data in the historical record. Stereotypes and prejudices are studied as a form of adaptation to threat, as one example
Research Assistant, *Jul. 2020-Dec. 2021*
- Interviewed participants over Zoom, resulting in further data collection for a study
- Conducted literature reviews and learned to articulate what was stated in evolutionary science journals
- Coded qualitative data for graduate students' research projects
- Helped with data collection in-person by reading instructions to participants, keeping the environment controlled, and sanitizing between data collection due to pandemic protocols

Culture of Context and Positive Development Lab, **Tempe, AZ**
Arizona State University
Supervisor: Dr. Monica Tsethlikai
This lab uses developmental and biological perspectives to understand how Indigenous youth use cultural practices as a method of blocking stress, and how these factors play a role in executive function development
Barrett Fellow, *Aug. 2019-Dec. 2019*
- Read research papers on executive function development, specifically pertaining to Indigenous adolescents

- Graded executive function tests, such as the BRIEF, happy/sad, etc. and input scores to SPSS
- Compiled qualitative information from interviews for a presentation to the Indigenous community

REACH Institute,   **Tempe, AZ**
Arizona State University
Supervisor: Dr. Nancy Gonzalez
This lab broadly studies Mexican-American youth. I worked on a project funded by the NIH, more specifically on a longitudinal intervention-based study meant to find out how to help Mexican-American youth by looking at familial and genetic influences
Research Assistant,   *Jan. 2019-May 2019*
- Interviewed youth and adults in-person and over the phone, increasing the amount of mass data collection
- Completed various office tasks, such as organization of folders and data, resulting in a more thorough collection of data

PUBLICATIONS

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/

BOOK CHAPTERS

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

PREPRINTS

Godfrey, R.K., Bjork, R.T., Alsop, E., Ruvalcaba, H.C., Antone, J., Michael, A.F., Williams, C., Hala'ufia, G., Blythe, A.D., **Hall, M.**, Van Keuren-Jensen, K., & Zarnescu, D.Z., (in-sub). Modelling dementia in Drosophila uncovers shared and specific targets of TDP-43 proteinopathy across ALS and FTD relevant circuits. Preprint available at https://doi.org/10.1101/2022.11.16.516763

PRESENTATIONS

Hutchins, E., Reiman, R., Palade, J., Meechovet, B., Bilagody, C., **Hall, M**., Frasier, M., Casey, B., & Van Keuren-Jensen, K. (2023, May). *Assessment of long RNAs in CSF and plasma from healthy donors or individuals with Parkinson's disease*. [Abstract and oral presentation]. Oral presentation presented at the International Society for Extracellular Vesicles, Seattle, WA.

Hutchins, E., Reiman, R., Bilagody, C., Antone, J., Meechovet, B., Palomares, D.M., **Hall, M.**, & Van Keuren-Jensen, K. (2023, May). *Characterization of mRNA, lncRNA, and circRNA in plasma and urine from participants with Alzheimer's disease, Parkinson's disease, and healthy controls*. [Abstract and oral presentation]. Oral presentation presented at the International Society for Extracellular Vesicles, Seattle, WA.

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.

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.

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.

Dryjanska, L., & **Hall, M.C.** (2021, July). Addressing Healthcare in the Face of Death and Dying: Snapshots from ten countries. In L. Dryjanska (Chair). *Ethical Dilemmas and Health Care Across the Most Affected*

Countries During the COVID-19 Pandemic. [Symposium]. Symposium presented at the thirty-second International Congress of Psychology, Virtual.

Rami, F., & **Hall, M.C.** (2021, July). A Multi-Country Analysis of the Impact of COVID-19. In L. Dryjanska (Chair). *Ethical Dilemmas and Health Care Across the Most Affected Countries During the COVID-19 Pandemic*. [Symposium]. Symposium presented at the thirty-second International Congress of Psychology, Virtual.

Battista, P., & **Hall, M.C.** (2021, July). The Mental Health Impact of the COVID-19 Pandemic: A Multi-Country Analysis. In L. Dryjanska (Chair). *Ethical Dilemmas and Health Care Across the Most Affected Countries During the COVID-19 Pandemic*. [Symposium]. Symposium presented at the thirty-second International Congress of Psychology, Virtual.

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*. [Poster, abstract, and presentation]. Poster and oral presentation presented at the Helios Scholars Intern Symposium, Phoenix, AZ.

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.

ORGANIZATIONAL AFFILIATIONS
Psi Chi, the International Honors Society in Psychology   **Dec. 2020-Present**
Member

American Psychological Association   **Apr. 2019-Present**
Affiliate Member
Member of the Division 52 COVID-19 Taskforce   *Aug. 2020-Present*
-   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
Member of the Division 52 Student Committee   *Aug. 2020-Present*
-   Reviewed submissions for the Student International Research Award and Anastasi Research Award to provide funding for students working on projects that are internationally focused
-   Reviewed submissions for the 2023 Division 45 student conference

COMMUNITY SERVICE
Knowing Neurons
Chief Website Manager   *Jun. 2023 - Present*
-   Implementing a more organized way of collaborating on many different projects within the Website Team
Website Team Member,   *Mar. 2023 – Jun. 2023*
-   Removed unnecessary plugins
-   Added a hamburger menu and made certain blocks visible only on certain screen sizes to improve the user design and move towards responsive design
-   Increased the visibility of the "Language" menu through flag icons
-   Reorganized certain pages to improve navigability and accessibility

Letters to a Pre-Scientist
STEM Pen Pal,   *Jul. 2022 – Present*
-   Consists of writing 4 letters to a "pre-scientist" in middle or high school about STEM each year
-   This takes about 10 hours per year

HonorHealth Deer Valley   **Phoenix, AZ**
Volunteer Generalist,   *Mar. 2022 – Present*

- Spent 4 hours per week at the front desk, helping direct people to their loved ones
- Handled a variety of problems that arose in a forward-facing position in healthcare

Next Generation Service Corps at Arizona State University, **Tempe, AZ**
Member, *Aug. 2018-Present*
- Attended seminars and classes designed to improve leadership and thinking across the public, private, and non-profit sectors

Member of the Disabilities and Empowerment Committee, *Aug. 2018-May 2022*
- Created disability advocacy fliers using Canva to increase disability awareness
- Attended service events and learned about disability awareness and advocacy, resulting in growth of my own knowledge of disability awareness and accessibility

Mentor Coordinator, *May 2021-Dec. 2021*
- Sorted Mentors and Mentees and matched them based on their major, campus, interests, etc., resulting in better mentor/mentee relationships
- Created email templates that could be utilized each year to send information to mentors
- Communicated with mentors and mentees in order to facilitate their relationships

Psi Chi at Arizona State University, **Tempe, AZ**
Member, *Dec. 2020-Present*
Director of Community Outreach, *May 2021-May 2022*
- Took charge of planning service events for Psi Chi
- Worked with other members of the Psi Chi Board to create budgets for events and make events known via newsletters and social media

7 Cups of Tea
Active Listener, *Sep. 2020-Dec. 2020*
This online platform is like a crisis textline, but instead it is for those who are not in dire emergency. Volunteers are taught to listen to those who contact us on this platform and help them talk and think through things; they are not trained for crises, which are directed to a licensed therapist.
- Spent approximately 2-4 hours per week online texting with people experiencing distress

Disability Awareness and Advocacy Committee at Arizona State University, **Tempe, AZ**
Co-Chair, *Aug. 2018-May 2019*
- Organized documents in a Google Drive, resulting in better organization of the committee's resources
- Created a Google Form to ask about disability stigma, resulting in more awareness of issues on-campus
- Acted as a go-between for Undergraduate Student Government, resulting in further advocacy of the Disability Resource Center's programs for students with disabilities

TECHNICAL SKILLS
- Google Drive/Microsoft Office - Proficient
- Canva Graphic Design – Proficient
- IBM SPSS Statistics - Proficient
- Qualtrics Surveys – Proficient
- Slurm Workload Manager – Proficient
- BASH/Shell scripting – Proficient
- R (Programming) – Proficient packages: tidyverse, dplyr, ggplot2, ggpubr, pheatmap, EnhancedVolcano
- R (Programming) – Intermediate packages: ComplexHeatmap, UpSetR, DESeq2
- Git/GitHub – Intermediate
- Python – Intermediate packages: numpy, tkinter

CERTIFICATIONS
- Responsible Conduct of Research Certification

REFERENCES
- Available upon request