

Kelley E. Parsons

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EDUCATION

Rhodes College, Memphis, Tennessee August 2018-May 2022
Bachelor of Science in Neuroscience, Minor in Health Equity
Cumulative GPA: 3.85/4.0

- Magna Cum Laude: Graduated with 3.85 GPA or higher

ACADEMIC HONORS AND AWARDS

- Rhodes College Dean's List Fall 2019, Spring 2022
 - Achieved GPA of 3.7 or higher
- Rhodes College Honor Roll Fall 2018, Spring 2019, Spring 2020, Fall 2020, Fall 2021
 - Achieved GPA of 3.5 or higher
- Diehl Scholarship Fall 2018 – Spring 2022
 - Competitive selection based on academic and extracurricular achievements in high school.
- Psi Chi Psychology Honor Society Inducted 2022
 - Psychology honor society encouraging outstanding merit and advancement in psychology requiring 3.5 GPA or higher
- Upsilon Sigma Urban Studies Honor Society Inducted 2022
 - Urban Affairs sponsored association with invitation-only membership to select high-achieving students
- Tri Beta Biology Honor Society Inducted 2022
 - Honor and professional society for students demonstrating excellence in biology classes and passion for the life sciences
- Le Bonheur Summer Plus Fellowship June 2020-August 2021
 - Selected as one of four Rhodes College students for a competitive, compensated research position at Le Bonheur Children's Hospital
- Presidential Volunteer Gold Service Award January 2018
 - Awarded for over 250 hours/year of community service hours over 12-month period

JOURNAL PUBLICATIONS

Mash, L.E., Kahalley, L.S., Raghubar, K.P., Goodrich-Hunsaker, N.J., Abildskov, T.J., De Leon, L.A., MacLeod, M., Stancel, H., **Parsons, K.**, Biekman, B., Desai, N.K., Grosshans, D.R., Paulino, A.C., Chu, Z.D., Whitehead, W.E., Okcu M.F., Chintagumpala, M., Wilde, E.A. (2023). Cognitive Sparing in Proton versus Photon Radiotherapy for Pediatric Brain Tumor Is Associated with White Matter Integrity: An Exploratory Study. *Cancers*, 15(6),1844.

In Preparation:

Christopher, K., Raghubar, K., Mash, L., Kim, S., **Parsons, K.**, Rizvi, M., Feuerbach, T., De Leon, L., Grosshans, D., Paulino, A., Aldave, G., Okcu, F., Kahalley, L., Chintagumpala, M. Tumor size associations with neurocognitive risk. Manuscript in preparation.

CONFERENCE PUBLICATIONS

Blustein, D., Mesa, N., Kuylenstierna, E., **Parsons, K.**, Stiegelmar, C., Hebert, J., & Shehata, A. (2020). TOWARDS OBJECTIVE ASSESSMENT OF OWNERSHIP OVER A PROSTHESIS. *Myoelectric Controls Symposium*. Retrieved from <https://conferences.lib.unb.ca/index.php/mec/article/view/31>.

PRESENTATIONS

De Leon, L. A., Mash, L. E., Espinoza, S. R., **Parsons, K.**, Adkins, E., Martin, C., Rizvi, M., Feuerbach, N. M., MacLeod, M., Stancel, H., Raghubar, K. P., & Kahalley, L. S. (2023, February). *Executive dysfunction following treatment for pediatric low grade brain tumors: Increased risk associated with infratentorial tumor location* [Conference presentation]. International Neuropsychological Society Annual Meeting, San Diego, CA, United States.

Mash, L. E., Kahalley, L. S., Raghobar, K. P., Goodrich-Hunsaker, N. J., Abildskov, T. J., De Leon, L. A., MacLeod, M., Stancel, H., **Parsons, K.**, Biekman, B., Wilde, E. A. (2023, February 1-4). *Cognitive sparing in proton versus photon radiotherapy for pediatric brain tumor associated with white matter integrity* [Conference presentation]. International Neuropsychological Society Annual Meeting, San Diego, CA, United States.

Parsons, K., Walker, B., Holcombe, B.D., & Holder, C. (December 2022). *Exploring Language and Neuropsychiatric Differences in Pediatric Epilepsy Patients* [Poster presentation]. American Epilepsy Society Annual Meeting, Nashville, TN, United States.

Parsons, K. (May 2022). *Induction of Lucid Dreaming: A potential therapy for Post-Traumatic Stress Disorder (PTSD)* [Senior Thesis Presentation]. Rhodes College, Memphis, TN, United States.

Parsons, K. (April 2022). *Lucid Dream Induction: A potential therapy for persistent nightmares associated with PTSD in pediatrics* [Oral presentation]. Le Bonheur Children's Hospital Neuropsychology Grand Rounds, Memphis, TN, United States.

Holcombe, B. and **Parsons, K.** (December 2021). *Pediatric-Onset Multiple Sclerosis: A Major Issue for Minor Patients* [Oral Presentation]. Le Bonheur Children's Hospital Pediatric Grand Rounds, Memphis, TN, United States.

Parsons, K., Ridley-Pryor, T., Briceno-Medina, M., Guerrier, K., Rivas Coppola, M., Wheless, J. (April 2020). *T-wave alternans (TWA) as an electrophysiological marker for cardiac electrical instability in pediatric refractory epilepsy* [Poster presentation]. Rhodes Symposium, Memphis, TN, United States.

Parsons, K., Alfaro, L. (April 2019). *Development of a 3D-printed prosthesis stimulator* [Poster presentation]. Rhodes Symposium, Memphis, TN, United States.

Chung, J., **Parsons, K.**, Marotta, L., Lingareddy, P., Pike, D. (April 2019). *Are college campus squirrels more accustomed to human interaction than squirrels in a natural environment?* [Poster presentation]. Rhodes Symposium, Memphis, TN, United States.

PEER REVIEW ACTIVITIES

Manuscript, invited reviewer (2022), *Journal of Clinical and Experimental Neuropsychology*

RESEARCH EXPERIENCE

Research Coordinator, Texas Children's Hospital, Houston, Texas

June 2022- present

Baylor College of Medicine

Texas Children's Hospital (Houston, TX)

Department: Pediatrics Psychology Research

Supervisor: Lisa S. Kahalley, PhD

Role: Research coordinator participating in a multifaceted team overseeing five NIH-funded pediatric neuropsychology research studies.

NIH-Funded Research Studies:

R01 CA249988 (NIH/NCI)

Comparison of Symptom Burden/Toxicity, Neurocognitive Change, and Functional Outcomes in Pediatric Brain Tumor Patients Treated with Proton vs. Photon Radiotherapy. This study examines how physical symptoms, behaviors, and thinking and problem-solving abilities might change after children are treated for brain tumors. Principal Investigator: Lisa S. Kahalley, PhD., Donald Mabbott, PhD, & Pamela S. Hinds, PhD

UG3 CA260607 (NIH/NCI)

Survivorship and Access to care for Latinos to Understand and address Disparities. This study examines the symptoms and emotional, behavioral, cognitive, and social functioning of patients during and after treatment for pediatric cancer. Multi-Principal Investigators: Michael Scheurer, PhD, Monica Gramatges, MD, & Lisa S. Kahalley, PhD.

R01 CA221197 (NIH/NCI)

White Matter Toxicity and Neurocognitive Outcomes in Pediatric Brain Tumor Patients Treated with Proton Beam Radiation Therapy: This study examines associations between white matter toxicity and neurocognitive outcomes following treatment for pediatric brain tumors with proton beam radiation therapy vs. photon radiation therapy and surgery only.

Multi-Principal Investigators: Lisa S. Kahalley, PhD. & Elisabeth A. Wilde, PhD.

RP190132 (Cancer Prevention and Research Institute of Texas)

Multi-omic Biomarker Discovery for therapy-related Neurocognitive Impairment in Childhood Acute Lymphoblastic Leukemia: The goal of this project is to assemble overlapping prospective cohorts of childhood leukemia patients and survivors to explore trajectories in neurocognitive performance and evaluate potential drivers of disparities in cognitive outcomes.

Principal Investigator: Austin Brown, PhD

Responsibilities

- Specialized in the administration of neurocognitive and behavioral assessments to children, adolescents and young adults with a history of pediatric brain tumor diagnoses including: medulloblastoma, craniopharyngioma, juvenile pilocytic astrocytoma, optic glioma chiasmatic, and other low-grade gliomas
- Administer and score neurocognitive psychological assessments, including WISC-V, WAIS-IV, WPPSI-IV, WIJ-IV, Beery VMI, CPT III, Grooved Pegboard, Purdue Pegboard, NEPSY-II, WMS-II, CVLT-C, CVLT-III and DKEFS
- Supervise and score questionnaires completed by parents and patients, including Neuro-Qol, BASC-3, ABAS-3, PED-PRO-CTCAE, PedsQL, BRIEF-2, BRIEF ARMSA-II, PROMIS, Chalder Fatigue Scale, Vanderbilt Assessment Scale and Conners-3
- Responsible for sending and monitoring all behavioral and psychosocial measures sent to patients' teachers
- Gather information from patient medical records and write research-informed neuropsychological reports documenting test results, interpretations, and recommendations for academic and lifestyle accommodations and practices
- Recruit, enroll, consent and handle incentives for patients and healthy controls involved in numerous studies, including longitudinal neurocognitive and neuroimaging studies
- Schedule neuropsychological evaluations and patient feedback sessions with the attending neuropsychologist
- Attend and take notes for weekly neuro-oncology and tumor board meetings to discuss outpatient monitoring, tumor recurrences and new diagnoses
- Enter neuropsychological test data into a secure database for various research protocols
- Review patient information, enter notes, upload reports, and communicate with families in electronic medical records (e.g., EPIC)
- Edit and review proper integration of questionnaires into REDCap database
- Compose and review manuscripts for publication
- Collaborate with integrative team of psychologists, neuropsychologists, hematologists, oncologists, radiologists, social workers, school coordinators and registered nurses

Research Assistant, Le Bonheur Children's Hospital, Memphis, TN

June 2020-May 2022

Department: Pediatric Neurology (2020-2021) & Pediatric Neuropsychology (2021-2022)

Mentor: Marianna Rivas-Coppola, MD (2020-2021) & Billy D. Holcombe, PhD (2021-2022)

- Assisted a neurologist in epilepsy research, shadowed physicians in the Neurology Clinic, and presented a proposal for Vegas Nerve Stimulator research as a selected student for a highly competitive fellowship in the Summer Plus Program (2020-2021)
- Constructed and entered patient data into a Neuropsychology patient repository in REDCap following approval from the Institutional Review Board (2021)
- Gained hands-on experience in the field of neuropsychology while observing neuropsychological examinations in both inpatient and outpatient settings, patient feedback visits, and report writing procedures (2021-2022)
- Briefed neuropsychologist on patient medical history prior to inpatient rounds and discussed clinical cases with the team (2021-2022)

- Attended and led Journal Club meetings and lectures to advance knowledge on Pediatric Neuroscience (2021-2022)
- Completed an Institution Review Board (IRB) application approved to explore the relationship between epilepsy, psychiatry and language functions (2022)
- Co-lead a presentation discussing the neurodevelopmental, psychiatric and cognitive sequelae associated with Pediatric-Onset Multiple Sclerosis at the Pediatric Grand Rounds Conference (Spring 2022)
- Led a presentation on Lucid Dreaming and Post-Traumatic Stress Disorder at Neurology Grand Rounds (Spring 2022)
- Held position of first author on research presented at the American Epilepsy Society (AES) conference (2022)

Student Researcher, Rhodes College Neuroscience Department, Memphis, TN Spring 2019-Summer 2020
Mentor: Daniel Blustein, PhD.

- Conducted research on the neuroscience behind ownership and agency for upper-limb prostheses
- Utilized a 3D printer and Autodesk Fusion 360 to create the *Handi-Hand* prosthetic hand and assembled circuit boards
- Assembled prosthetic hand and bypass to be used by subjects with intact upper limbs
- Collaborated with a Rhodes psychology lab for weekly presentations on research

Rhodes College Neuroscience Fellow, Rhodes College, Memphis, TN Summer 2019
Mentor: Daniel Blustein, PhD

- Worked full time in Neuroscience lab with a focus on refining prostheses for upper limb amputees
- Completed tutorials on MATLAB, Arduino programs; learned how to read circuit diagrams and assemble circuits
- Collaborated with researchers from the University of Alberta to create a 3D-printed prosthetic hand aimed to model the experience of device ownership and agency in participants with intact upper limbs

RELEVANT CLINICAL AND WORK EXPERIENCE

Medical Assistant, Piney Point Dermatology, Houston, TX Fall 2021

- Collected patient information, documented skin lesions, prepared rooms for procedures and provided patient education
- Scheduled patient appointments and conducted other front-desk operations

Supplemental Instructor for Intro to Psychology, Rhodes College, Memphis, TN Fall 2019

- Facilitated bi-weekly group study sessions & office hours for students wanting additional help in the Intro to Psychology course
- Prepared lesson plans and group study strategies prior to each session to encourage cooperation between students seeking assistance

Student Intern, Houston Area Pediatric Neurology, Katy, TX 2017-2018

- Gained hands-on clinical experience by rooming patients and taking vital signs
- Performed various administrative tasks, including entering data into electronic medical records

COMMUNITY OUTREACH

Chi Omega Sorority, Rhodes College, Memphis, TN Spring 2019-Present

- Served as a member of the Philanthropy Committee and assisted in fundraising events for Make-A-Wish Foundation

St. Jude Target House, Memphis, TN Spring 2019

- Volunteered at several St. Jude Target House events which involved serving food to residents and facilitating event activities

Make-A-Wish Foundation, Wish Granter, Memphis, TN Spring 2019

- Attended Wish Granter training event to become a Wish Granter
- Met with a Make-A-Wish child and family to discuss their desired wish and reported wish to Make-A-Wish Foundation

RELEVANT COURSEWORK

Infant & Child Development; Statistical Methods in Psychology; Adult Psychopathology; Clinical Neuroscience; Genetics; Neuroscience of Learning and Memory; Developing Cultural Humility; Faith, Health and Justice; Senior Seminar

SOFTWARE PROFICIENCY

- Computer: Microsoft Office Suite, search engines, Adobe suite and Photoshop
- Research: SPSS (intermediate), MATLAB (beginner) and Arduino (beginner)
- Clinical: CTMS, REDCap, EPIC

CERTIFICATIONS

The Collaborative Institutional Training Initiative (CITI Program)

- Research Conflict of Interest Course (2022-2026)
- Social & Behavioral Research Refresher 201 (2022-2025)
- Social & Behavioral Research Refresher 101 (2022-2025)
- GCP Course for Clinical Trials Involving Investigational Drugs (international / ICH focus) (2022-2025)
- Health Information Privacy and Security (HIPS) for Biomedical (2022-2025)
- Biomedical Research- Basic/Refresher (2022-2025)