

**Garrett J. Cardon**

**Ph.D., Au.D., CCC-A**

130 TLRB, Brigham Young University, Provo, UT 84602 · (303) 241-6666 · garrett.cardon@byu.edu

---

**CURRENT POSITIONS**

Assistant Professor, 2019-present

Department of Communication Disorders and Neuroscience Center, Brigham Young University, Provo, Ut

Director, 2019-present

Cardon Laboratory, Brigham Young University, Provo, UT

Co-Director, 2022-present

BYU Autism Connect Research Group, Brigham Young University, Provo, UT

**EDUCATION**

Postdoctoral Fellow, 2015-2018

University of Colorado Denver Anschutz Medical Campus, Developmental Psychobiology Research Group. *Mentor*: Don Rojas, Ph.D.

Ph.D. – Neuroscience, Cognitive Science, and Speech, Language, and Hearing Sciences, 2015

University of Colorado at Boulder, Boulder, CO

*Dissertation*: Somatosensory cross-modal re-organization in children with cochlear implants

*Doctoral Advisor*: Anu Sharma, Ph.D.

Au.D. – Doctor of Audiology, 2008

University of Colorado at Boulder, Boulder, CO

B.S. – Audiology and Speech Language Pathology, 2004

Brigham Young University, Provo, UT

**PROFESSIONAL EXPERIENCE**

Fellow, 2020-2021

Utah Regional Leadership Education in Neurodevelopmental Disabilities—Autism Enhanced Track (URLEND-AE)

Fellow, 2019-2020

Utah Regional Leadership Education in Neurodevelopmental Disabilities (URLEND)

Research Scientist (2018-2019) Psychology Department, Colorado State University

*Funding*: NIDCD K01 DC016339-01A1 – Neurophysiological and Behavioral Correlates of Sensory and Communication Dysfunction in Children with Autism Spectrum Disorder

Postdoctoral Research Associate (2015-2018) University of Colorado Denver Anschutz Medical Campus

*Research Focus:* Neuroimaging and sensory dysfunction in Autism Spectrum Disorder and other developmental disabilities

*Funding:* National Institutes of Health NIMH T32-MH015442 Institutional National Research Training Award and Developmental Psychobiology Endowment Fund

*Mentor:* Don Rojas, Ph.D., Professor, Psychology Department, Colorado State University

## AWARDED RESEARCH GRANTS

**Cardon, G.** (Principal Investigator) Understanding and Improving Autistic-Neurotypical Empathy Through Science and Art. *McKay School of Education, Brigham Young University, MSE Research Grant*. Total Amount: \$30,000. Award Duration: 2023-2024.

**Cardon, G.** (Principal Investigator; Mentor: Jared Nielsen, Ph.D., Terisa Gabrielsen, Ph.D., Don Rojas, Ph.D.) Neurophysiological and Behavioral Correlates of Sensory and Communication Dysfunction in Children with Autism Spectrum Disorder. *National Institutes of Health NIDCD K01 DC016339-01A1- Mentored Career Development Award*. Total Amount: \$394,889. Award Duration: 2018-2023.

**Cardon, G.** (Principal Investigator) Sensory Dysfunction and Autistic Traits in Young Adults: Behavioral and Neurobiological Correlates. *McKay School of Education, Brigham Young University, MSE Research Grant*. Total Amount: \$30,000. Award Duration: 2021-2022.

**Cardon, G.** (Principal Investigator) Auditory Brainstem Response in Young Children with Autism Spectrum Disorder. *McKay School of Education, Brigham Young University, Experiential Learning Grant*. Total Amount: \$9,000. Award Duration: 2020-2022.

**Cardon, G.** (Principal Investigator) Resting State Functional Connectivity of Sensory Networks in Children with Autism Spectrum Disorder. *Developmental Psychobiology Research Fund Seed Grant*. Total Amount: \$7,500. Duration: 2015-2018.

**Cardon, G.** (Principal Investigator; Sponsor: Anu Sharma, Ph.D.) Somatosensory-to-Auditory Cortical Cross-Modal Reorganization in Children with Cochlear Implants. *National Institutes of Health NIDCD F31 DC013218-01A1 - Ruth L. Kirchstein NRSA*. Total Amount: \$105,000. Award Duration: 2013-2015.

## OTHER AWARDED GRANTS

**Cardon, G.** (Applicant) Loan Repayment Grant. *National Institutes of Health, NIDCD*. Award Duration: 2023-2024

**Cardon, G.** (Awardee) Loan Repayment Grant. *National Institutes of Health, NIDCD*. Award Duration: 2022-2023

**Cardon, G.** (Awardee) Loan Repayment Grant. *National Institutes of Health, NIDCD*. Award Duration: 2020-2022

## SCIENTIFIC PUBLICATIONS

\* denotes equal contributions; <sup>s</sup> denotes student

**Cardon, G.**, Larsen, M.<sup>s</sup>, Calton, S.<sup>s</sup>, Gabrielsen, T. (submitted) Sensory processing and autistic traits in young adult females.

**Cardon, G.**, Bradley, M. (in review) In-Depth Accounts of Uncertainty, Sensory Processing, and Stress During the COVID-19 Pandemic from Families of Autistic Children

**Cardon, G.**, Buckhannon, M.<sup>s</sup>, Rojas, D. (in review) Neural and behavioral correlates of sensory processing, intolerance of uncertainty, and autistic traits in children with and without a diagnosis of Autism Spectrum Disorder

- Cardon, G.**, Cate, M.<sup>S</sup>, Cordingly S., Bown, B. (in review) Auditory Brainstem Response in Autistic Children: Potential Implications for Sensory Processing
- Cardon, G.**, Bradley, M.<sup>S</sup> (in review) Uncertainty, Sensory Processing, and Stress in Autistic Children During the COVID-19 Pandemic.
- Cardon, G.**, Permar, H., Sherman, W., Malone, K., Benallie, K., Haverkamp, C., Clark, T., Diakow, D., Dahl, E., Romero, S., Freedman, R., Neuman, A., Lindsey, R., Hardesty, C., Carbone, P., Gabrielsen, T. (2022) Design, Implementation, and Evaluation of an ECHO Autism Network for Rural Healthcare Providers by Trainees in a Regional LEND Program. *Journal of Educational and Psychological Consultation*
- Hennesy, T\*<sup>s</sup>, **Cardon, G.\***, Campbell, J., Glick, H., Bellsouder, D., Sharma, A. (2022) Cortical Cross-Modal Reorganization from both Visual and Somatosensory Modalities in Children with Cochlear Implants. *Otology and Neurotology*. 43(8), e872-e879.
- Cardon, G.**, Sharma, A. (2021) The effect of amplification on cortical synchrony in children with Auditory Neuropathy Spectrum Disorder. *Hearing, Balance, and Communication*
- Cardon, G.**, Sharma, A. (2020) Cortical neurophysiological correlates of auditory threshold in adults and children with normal hearing and Auditory Neuropathy Spectrum Disorder. *American Journal of Audiology*. 2 Dec 2020.
- Cardon, G.**, Sharma, A. (2019) Somatosensory cortical cross-modal reorganization in children with cochlear implants. *Frontiers in Neuroscience*, 13(469).
- Cardon, G.** (2018). Neural Correlates of Sensory Abnormalities Across Developmental Disabilities. *International Review of Research in Developmental Disabilities* (Vol. 55, pp. 83–143).
- Cardon, G.**, Sharma, A. (2018) Somatosensory cross-modal reorganization in adults with early stage, age related, hearing loss. *Frontiers in Human Neuroscience*, 12(172), 1-11.
- McKnight, R. J., Glick, H., **Cardon, G.**, & Sharma, A. (2018). The effects of stimulus rate on ABR morphology and its relationship to P1 CAEP responses and auditory speech perception outcomes in children with auditory neuropathy spectrum disorder: evidence from case reports. *Hearing, Balance and Communication*, 16(1), 1–12.
- Cardon, G.**, Hepburn, S., Rojas, D. (2017) Structural covariance of sensory networks, the cerebellum, and amygdala in individuals with Autism Spectrum Disorder. *Frontiers in Neurology: Applied Neuroimaging*, 8:615
- Sharma, A., **Cardon, G.** (2015) Patterns of cortical development and neuroplasticity in children with Auditory Neuropathy Spectrum Disorder. *Hear Res*, 330 (Pt B): 221-232 PMID: [PMC4675684](#)
- Sharma, A., Campbell, J., **Cardon, G.** (2015) Developmental and cross-modal plasticity in deafness: Evidence from the P1 and N1 cortical auditory evoked potentials in cochlear implanted children. *Int J Psychophysiol*. 95(2): 135-144. PMID: [PMC4209331](#)
- Sharma, A., **Cardon, G.** (2014) Developmental plasticity of the central auditory system: Evidence from deaf children fitted with cochlear implants. In Romand, R., & Varela-Nieto, I. (Eds.) *Development of the auditory and vestibular systems-4e* (pp. 316-331). Waltham, MA: Academic Press
- Cardon, G.**, Sharma, A. (2013) Cortical maturation and auditory skill development in children with auditory neuropathy spectrum disorder who use cochlear implants. *Int J Audiol* 52(9): 577-586. PMID: [PMC3781925](#)
- Cardon, G.**, Campbell, J., Sharma, A. (2012) Plasticity in the developing brain: evidence from children with sensorineural hearing loss and auditory neuropathy spectrum disorder. Accepted for publication: *J Amer Acad Audiol* 23(6): 396-411. PMID: [PMC3733172](#)
- Campbell, J., **Cardon, G.**, Sharma, A. (2011) Clinical applications of the P1 biomarker in children with sensorineural hearing loss and auditory neuropathy spectrum disorder. *Semin Hear* 32(2):147-155. PMID: [PMC3782746](#)

**Cardon, G.,** Sharma, A. (2011) Cortical auditory evoked potentials in auditory neuropathy spectrum disorder: clinical implications. *Perspectives on Hearing and Hearing Disorders in Childhood* 21: 31-37

Sharma, A., **Cardon, G.,** Martin, K., Roland, P. (2011) Cortical maturation and auditory skill development in children with auditory neuropathy spectrum disorder. *Int J Audiol* 50: 98-106. PMID: [PM3735347](https://pubmed.ncbi.nlm.nih.gov/3735347/)

## MANUSCRIPTS IN PREPARATION

**Cardon, G.,** Rojas, D. (in preparation) Restricted and repetitive behaviors and social communication deficits: their association and underlying functional connectivity in children with Autism Spectrum Disorder

**Cardon, G.,** Tindall, K.<sup>S</sup>, Rojas, D. (in preparation) Neural and behavioral correlates of sensory processing and anxiety in children with autism

**Cardon, G.,** Cooper, C.<sup>S</sup>, Rojas, D. (in preparation) Neural and behavioral correlates of sensory processing and semantic language in children with autism

## RESEARCH PRESENTATIONS

**Cardon, G.** (2023) Sensory Processing in Autism: Behavioral Correlates, Neurological Underpinnings, and Clinical Implications. Invited Presentation, Utah Speech-Language-Hearing Association (USHA)

**Cardon, G.** (2022) Sensory Processing in Autism: Behavioral Correlates, Neurological Underpinnings, and Clinical Implications. Invited Presentation, American Speech-Language-Hearing Association (ASHA), New Orleans, LA.

**Cardon, G.,** Buckhannon, M.<sup>S</sup>, Tindall, K.<sup>S</sup>, Rojas, D. (2021) Sensory Processing, Prediction, and Anxiety in Autistic Children: Behavioral and Neurophysiologic Correlates. Poster, American Speech-Language-Hearing Association (ASHA). Online (Due to COVID-19 restrictions).

**Cardon, G.,** Sharma, A. (2021) Cortical neurophysiological correlates of auditory threshold in adults and children with normal hearing and Auditory Neuropathy Spectrum Disorder. Poster, International Evoked Response Audiometry Study Group (IERASG). Online (Due to COVID-19 restrictions).

**Cardon, G.,** Rojas, D. (2021) Restricted and repetitive behaviors and social communication: Their relationship and underlying functional connectivity in autistic children. Poster, Annual conference of the International Society for Autism Research (INSAR). Online (Due to COVID-19 restrictions).

**Cardon, G.,** Buckhannon, M.<sup>S</sup>, Tindall, K.<sup>S</sup>, Rojas, D. (2021) Sensory processing, prediction, and anxiety in autistic children: Behavioral and neurophysiologic correlates. Poster, Annual conference of the International Society for Autism Research (INSAR). Online (Due to COVID-19 restrictions).

**Cardon, G.,** Rojas, D. (2020) Autism symptoms and sensory abnormalities: Their relationship and underlying functional connectivity. Poster, Annual Meeting of the Organization for Human Brain Mapping. Online (due to COVID-19 restrictions).

**Cardon, G.** (2020) Sensory Dysfunction in Autism Spectrum Disorder: Neural and Behavioral Correlates. Invited presentation, Utah Speech-Language-Hearing Association (USHA), Salt Lake City Utah

**Cardon, G.** (2019) Sensory Dysfunction in Autism Spectrum Disorder: Neural and Behavioral Correlates. Invited presentation, BYU Comprehensive Clinic Grand Rounds, Provo, UT

**Cardon, G.,** Rojas, D. (2019) Resting-State Functional Connectivity of Sensory Networks in Children with Autism Spectrum Disorder. Poster, Annual Meeting of the Organization for Human Brain Mapping, Rome, Italy

- Cardon, G.** (2018) Sensory Dysfunction in Autism Spectrum Disorder: Neural and Behavioral Correlates. Invited presentation, Developmental Psychobiology Research Group, University of Colorado Denver, Anschutz Medical Campus
- Cardon, G.,** Buard, I., Rojas, D. (2018) Neural correlates of observation and imitation of human and robot hand motion in Autism Spectrum Disorder. Poster: Department of Psychiatry, University of Colorado School of Medicine
- Cardon, G.,** Buard, I., Rojas, D. (2017) Neural correlates of observation and imitation of human and robot hand motion in Autism Spectrum Disorder. Poster: Flux Congress
- Cardon, G.** (2017) Functional and morphological connectivity of sensory networks in autism spectrum disorder. Invited presentation, Developmental Psychobiology Research Group, University of Colorado Denver, Anschutz Medical Campus
- Cardon, G.** (2016) Functional and morphological connectivity of sensory networks in autism spectrum disorder. Invited presentation, Developmental Psychobiology Research Group, University of Colorado Denver, Anschutz Medical Campus
- Cardon, G.,** Sharma, A. (2016) Somatosensory-auditory cross-modal reorganization in adults with early stage hearing loss. Poster: annual poster session, Department of Psychiatry, University of Colorado School of Medicine
- Cardon, G.** (2015) Sensory dys-function in autism spectrum disorder. Invited presentation, Developmental Psychobiology Research Group, University of Colorado Denver, Anschutz Medical Campus
- Cardon, G.,** Sharma, A. (2015) Somatosensory-auditory cross-modal reorganization in adults with early stage hearing loss. Poster: annual convention of the American-Speech-Language-Hearing Association
- Cardon, G.,** Sharma, A. (2015) Cortical neurophysiologic correlates of auditory threshold in normal hearing and Auditory Neuropathy Spectrum Disorder. Poster: annual convention of the American-Speech-Language-Hearing Association
- McKNight, R., Auerbach, M., Landwehr, T., **Cardon, G.,** Sharma, A. (2015) Effects of stimulus rates on auditory brainstem response in patients with Auditory Neuropathy Spectrum Disorder. Poster: annual convention of the American-Speech-Language-Hearing Association
- Cardon, G.,** Sharma, A. (2014) Multimodal cortical mechanisms in sound processing. Poster: Annual poster session, Institute of Cognitive Science, University of Colorado at Boulder
- Cardon, G.,** Sharma, A. (2014) Multimodal cortical mechanisms in sound processing. Poster: Annual meeting of the Cognitive Neuroscience Society, Boston, MA.
- Cardon, G.,** Sharma, A. (2013) Somatosensory-to-auditory cross-modal plasticity in deafness. Poster: Annual meeting of the Society for Neuroscience, San Diego, CA.
- Cardon, G.,** Sharma, A. (2012) Cortical correlates of neural dys-synchrony in auditory neuropathy spectrum disorder. Poster: Annual meeting of the American Auditory Society, Scottsdale, AZ.
- Cardon, G.,** Sharma, A. (2012) Cortical correlates of neural dys-synchrony in auditory neuropathy spectrum disorder. Poster: Annual poster session, Institute of Cognitive Science, University of Colorado at Boulder
- Cardon, G.,** Sharma, A. (2011) Subcortical auditory dys-synchrony affects cortical maturation in children with Auditory Neuropathy Spectrum Disorder. Poster: Front Range Neuroscience Group.
- Szymanski, A., **Cardon, G.,** Sharma, A. (2011) Evaluation of cortical auditory evoked potential thresholds in a hearing impaired and normal hearing neonate. Poster: Annual conference of the Educational Audiology Association.
- Cardon, G.,** Sharma, A. (2010). Central auditory maturation and auditory skill development in children with Auditory Neuropathy/Dys-synchrony. Research Presentation: Student Research Forum, Convention of the American Academy of Audiology, 2010.
- Sharma, A., **Cardon, G.,** Gilley, P., Nash, A., Wallace, A. (2010). Cortical development and re-organization in children with Auditory Neuropathy/Dys-synchrony. Poster: Association of Research in Otolaryngology Midwinter Meeting.

- Cardon, G.**, Sharma, A., Gabbard, S., Burns, S., Claycomb, S., Lupo, V., Strong, D. (2009). Clinical utility of the P1 cortical auditory evoked potential. Poster: Colorado Academy of Audiology, 2009
- Cardon, G.**, Sharma, A., Martin, K. (2008). Central auditory maturation and speech perception in children with Auditory Neuropathy/Dysynchrony. Research presentation: Annual convention of the Colorado Academy of Audiology, 2008
- Cardon, G.**, Sharma, A., Martin, K. (2008). Central auditory maturation in children with Auditory Neuropathy/Dysynchrony. Research presentation: Annual convention of the American Academy of Audiology, 2008
- Cardon, G.**, Yoshinaga-Itano, C. (2008). Latino Cultures: Issues and implications in audiology practice. Web publication, Marion Downs Hearing Center Foundation: <http://www.mariondowns.com/multicultural.htm>. Posted 2008
- Cardon, G.**, Yoshinaga-Itano, C. (2006). Social development of hard of hearing children from Spanish speaking homes. Research presentation: Annual convention of the American Academy of Audiology, 2006
- Cardon, G.**, Nelson, R., Yoshinaga-Itano, C. (2005). Language development of hard of hearing children from Spanish speaking homes. Poster: Annual convention of the Colorado Academy of Audiology, 2005
- Cardon, G.**, Nelson, R., Yoshinaga-Itano, C. (2005). Developmental outcomes of hard of hearing children from Spanish speaking homes. Research presentation: Annual convention of the American Speech Language and Hearing Association, 2005
- Nelson, R., **Cardon, G.**, Yoshinaga-Itano, C. (2005). Language development of hard of hearing children from Spanish speaking homes. Research presentation: Annual convention of the American Academy of Audiology, 2005

## RESEARCH PRESENTATIONS WITH MENTORED STUDENTS

\* denotes equal contributions; <sup>s</sup> denotes student

- McQuarrie, M.<sup>s</sup>, **Cardon, G.**, Calton, S. (2022) Sensory processing and autistic traits in young adult females. Poster, International Society for Autism Research, Autsin, TX.
- Cardon, G.**, Bradley, M.<sup>s</sup> (2022) Autism, sensory processing, intolerance of uncertainty, and the COVID-19 pandemic: A mixed methods approach. Poster, International Society for Autism Research, Autsin, TX.
- Bradley, M.<sup>s</sup>, **Cardon, G.** (2022) Autism, sensory processing, intolerance of uncertainty, and the COVID-19 pandemic: A mixed methods approach. Oral presentation, 3-Minute Thesis Contest, Provo, UT
- McQuarrie, M.<sup>s</sup>, **Cardong, G.**, Calton, S. (2022) Sensory processing and autistic traits in young adult females. Oral presentation, Utah Conference on Undergraduate Research (UCUR), St. George, UT.
- Hennesy, T\*<sup>s</sup>, **Cardon, G.\***, Campbell, J., Glick, H., Bellsouder, D., Sharma, A. (2021) Cortical Cross-Modal Reorganization from both Visual and Somatosensory Modalities in Children with Cochlear Implants. Poster, Annual conference of the American Cochlear Implant Alliance (ACI; CI2021). Online (Due to COVID-19 restrictions).
- Clarke, L.<sup>s</sup>, **Cardon, G.**, Cordingly, S., Bown, B. (2021) Auditory brainstem response in young children with Autism Spectrum Disorder. Poster, Annual Conference on Undergraduate Research (UCUR). Online (due to COVID-19 restrictions).
- Buckhannon, M.<sup>s</sup>, **Cardon, G.** (2020) Sensory processing and fear and anxiety in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings: Intolerance of Uncertainty and Autistic Traits. *Accepted to be presented at the annual convention of the American Speech Language and Hearing Association (ASHA), but not presented due to the COVID-19 pandemic.*

Tindall, K.<sup>S</sup>, **Cardon, G.** (2020) Sensory processing and fear and anxiety in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings: Fear and Anxiety. *Accepted to be presented at the annual convention of the American Speech Language and Hearing Association (ASHA), but not presented due to the COVID-19 pandemic.*

## HONORS AND AWARDS

- 2022 Invited Guest Speaker, BYU President's Leadership Summit, Provo, UT
- 2022 Student research presentation entitled *Autism, sensory processing, intolerance of uncertainty, and the COVID-19 pandemic: A mixed methods approach* won 2<sup>nd</sup> place overall at the annual 3-Minute Thesis Contest, BYU, Provo, UT
- 2021 Student research poster entitled *Cortical Cross-Modal Reorganization from both Visual and Somatosensory Modalities in Children with Cochlear Implants* selected to be a 2021 ACI Alliance student poster winner at the CI2021 conference on Cochlear Implants in Children and Adults.
- 2021 Student research presentation entitled *Auditory brainstem response in young children with Autism Spectrum Disorder* designated as a meritorious presentation at the Annual Conference on Undergraduate Research (UCUR).
- 2015 Research poster entitled *Cortical Neurophysiologic Correlates of Auditory Threshold in Normal Hearing & Auditory Neuropathy Spectrum Disorder* designated as a meritorious poster submission at the annual convention of the American Speech-Language-Hearing Association.
- 2015 Research Travel Award, American Speech-Language-Hearing Association
- 2013 New Century Scholars Doctoral Scholarship, American Speech-Language-Hearing Foundation
- 2013 Research poster entitled *Somatosensory-to-auditory cross-modal plasticity in deafness* selected by a review panel to be featured in the conference book of "Hot Topics" at the annual meeting of the Society for Neuroscience and for release to the press.
- 2012 Mentored Research Award, American Auditory Society (funding provided by the National Institutes of Health), Funded travel to annual conference of the American Auditory Society and poster presentation during a special mentored session
- 2011 Nominated by SLHS department to be featured as an outstanding graduate student on the University of Colorado's Graduate School Website
- 2010 Audiology and Hearing Science Research Travel Award, American Speech-Language-Hearing Association
- 2010 Student Research Forum Award, American Academy of Audiology
- 2009 Graduate Student Scholarship, American Speech-Language-Hearing Foundation
- 2009 Best Should Teach Silver Award, University of Colorado at Boulder
- 2003-2004 President, Brigham Young University Chapter of the National Student Speech Language Hearing Association
- 1997 Eagle Scout, Three Palms, Order of the Arrow, Boy Scouts of America

## GRADUATE AND UNDERGRADUATE COURSE INSTRUCTION EXPERIENCE

Brigham Young University Provo, Department of Communications Disorder

*Hearing Science* (Fall and Winter semesters, ongoing since Fall 2019; undergraduate, ComD 334)

*Neurofoundations of Language, Speech and Hearing* (Fall and Winter semesters, ongoing since Winter 2020; undergraduate, ComD 420)

Colorado State University, Department of Psychology

*Cognitive Neuroscience* (Fall 2017, Spring 2017; undergraduate)

University of Colorado Boulder, Department of Speech, Language and Hearing Sciences

*Signals and Systems in Audiology* (Fall 2016; graduate)

*Auditory Rehabilitation* (Spring 2013, undergraduate)

*Audiological Evaluation* (Fall 2012, undergraduate)

*Multicultural Aspects of Communication Differences and Disorders* (Fall 2008 & 2009, undergraduate)

## OTHER TEACHING EXPERIENCE

- 2019-present     Guest Lecturer, *Introduction to Communication Disorders* (undergraduate), *Aural Rehabilitation* (undergraduate), *Individuals with Autism Spectrum Disorder and Other Complex Communication Needs* (graduate), Brigham young University, Provo, UT
- 2011-2015     Teaching Assistant and Guest Lecturer, *Neurodiagnostics* and *Pediatric Audiology* (graduate), Speech, Language and Hearing Sciences Department, University of Colorado at Boulder
- 2009-2010     Lead Graduate Instructor, Speech Language and Hearing Sciences Department, University of Colorado at Boulder
- 2005-2014     Invited Guest Lecturer, Course Titles: *Audiologic Evaluation*, *Auditory Rehabilitation*, *Introduction to Communication Disorders* *Multicultural Aspects of Communication Differences and Disorders*, and *Aural Rehabilitation*, Speech, Language and Hearing Sciences Department, University of Colorado at Boulder

## STUDENT MENTORING

- 2022-present     Co-director, BYU Autism Connect Research Group – mentor multiple students, both autistic and neurotypical, from across campus in research projects, advocacy, and education related to autism
- 2019-present     Master's Thesis Committee Chair, Brigham Young University
- Kelsey Tindall (Communication Disorders) – *Sensory processing and fear and anxiety in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings*. Graduated: June 2021
  - Charlie Pasquale (Communication Disorders) – *Sensory processing and social communication in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings*. Graduated: December 2021
  - Maggie Buckhannon (Communication Disorders) – *Sensory processing, autistic traits, and intolerance of uncertainty in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings*. Graduated: June 2021
  - Savanah Calton (Communication Disorders) – *Sensory processing and autistic traits in young adults: behavioral and neural correlates*



- Mollie Bradley (Communication Disorders) – *Sensory processing, intolerance of uncertainty, and covid-19: A mixed methods investigation in autistic individuals and their families*
- Madelyn Cate (Communication Disorders) – *Auditory brainstem response in autistic children*
- Courtney Cobbley (Communication Disorders) – *Sensory processing and attention in autistic children*
- Annika Henderson (Communication Disorders) – *Sensory processing and emotion in autistic adolescents and young adults*
- Mackenzie Hyde (Communication Disorders) – *Understanding and Improving Autistic-Neurotypical Empathy through Science and Art*
- Elizabeth Bessey (Communication Disorders) – *Understanding and Improving Autistic-Neurotypical Empathy through Science and Art*
- Courtney Marks (Communication Disorders) – *Sensory processing in autistic children with cochlear implants*
- Miranda Larsen (Communication Disorders) – *Neurophysiologic correlates of autistic traits and sensory processing in young adult females*

Master's Thesis Committee Member, Brigham Young University

- Grace Bell (Communication Disorders)
- Cassidy Gooch (Communication Disorders)
- Savannah Wagner (School Psychology)
- Lauren Clarke (Communication Disorders)
- Tiana Bateman (Communication Disorders)
- Emily Moore (Communication Disorders)
- Karys Normansell (Psychology)
- Amelia Jackson (Communication Disorders)
- Angela Johnson (Communication Disorders)
- Taylor Magleby (Communication Disorders)
- Ashley Moody (Communication Disorders)

Undergraduate Research Experience Advisor, Brigham Young University

- Juliana Pickard (Communication Disorders) – *Sensory processing, attention, and prediction in autistic children*
- Katie Gifford (Communication Disorders) – *Sensory processing, prosody, and emotion in autistic young adults*
- Anna Waters (Communication Disorders) – *Sensory processing, prosody, and emotion in autistic young adults*
- Rachel Ellsworth (Communication Disorders) – *Sensory processing, attention, and prediction in autistic children*
- Aliese Pedro (Communication Disorders) – *Sensory processing, attention, and prediction in autistic children*
- Elizabeth Russell (Communication Disorders) – *Sensory processing, attention, and prediction in autistic children*
- Aubrey Koyle (Communication Disorders) – *Autism and audiology*
- Pam Chanthakoun (Communication Disorders) – *Autism and audiology*
- Megan Houston (Communication Disorders) – *Autism and audiology*

- Olivia Simmons (Communication Disorders) – *Sensory processing, prosody, and emotion in autistic young adults*
- Naomi Wynn (Communication Disorders) – *Lab manager over multiple projects*
- Abigail Black (Neuroscience) – *neurophysiologic correlates of sensory processing across different modalities*
- Lily Androse (Neuroscience) – *Understanding and Improving Autistic-Neurotypical Empathy Through Science and Art*
- Karlee Shuldberg (Communication Disorders) – *Responses of autistic individuals to socially-related auditory vs. other auditory stimuli*
- Aubrey Carroll (Communication Disorders) – *Sensory processing and autistic traits in young adults with ADHD; Review of existing interventions for sensory processing disorder*
- Miranda McQuarrie (Communication Disorders) – *Sex Differences in Sensory Processing and Autistic Traits in Neurotypical Young Adults*
- Aubree Johnston (Communication Disorders) – *Sensory processing and autistic traits in young adults / Autism, sensory processing, uncertainty, and the COVID-19 pandemic*
- Sierra Vance (Communication Disorders) – *Sensory processing and autistic traits in young adults*
- Grace Bell (Communication Disorders) – *Sensory processing and autistic traits in young adults*
- Reagan Schwartz (Communication Disorders) – *Sensory processing and autistic traits in young adults*
- Sophie Jimenez (Communication Disorders) – *Autism, sensory processing, uncertainty, and the COVID-19 pandemic*
- Cassidy McFarlane (Communication Disorders) – *Autism, sensory processing, uncertainty, and the COVID-19 pandemic*
- Ashley Martin (Communication Disorders) – *Autism, sensory processing, uncertainty, and the COVID-19 pandemic*
- Sarah Louder (Communication Disorders) – *Autism, double empathy, and art*
- Lauren Clarke (Communication Disorders) – *The association and neurophysiologic correlates of Autistic traits and sensory processing abnormalities in typically developing young adults*
- Rachel Galeria (Communication Disorders) – *Sensory processing and social communication in children with Autism Spectrum Disorder: their behavioral association and neurophysiological underpinnings*
- Elaine Hulme (Communication Disorders) – *The association and neurophysiologic correlates of Autistic traits and sensory processing abnormalities in typically developing young adults*
- Sarah Helzer (Communication Disorders) – *Scientific Writing Editing*

2017-2019

Undergraduate Senior Honors Thesis Committee Member, Colorado State University

- Davis Reina-Guerra (Psychology and Neuroscience) – *Sensory Phoneme Mimicry and Arbitrary Methods of Language Encoding on the Effectiveness of Auditory-Tactile Sensory Substitution Devices*

- Katherine Erler (Psychology) – *Applying Concepts of Cognitive Psychology to CPR Training to Improve Retention*
- Jared Presnell (Molecular, Cellular, and Integrated Neuroscience) – *A Review and Analysis of the Use of Machine Learning in Autism Spectrum Disorder Research*

2010-2015 Au.D. Capstone Project and Honors Thesis Co-Advisor with Dr. Anu Sharma, Brain and Behavior Laboratory, University of Colorado at Boulder

Project Titles: *The Effect of Amplification on Cortical Synchrony in Children with Auditory Neuropathy Spectrum Disorder; Central Auditory Development in Children with Hearing Loss and Multiple Disabilities; Development of Frequency Content of the P1 Cortical Auditory Evoked Potential in Children; Intra-individual Variability in Children with Auditory Neuropathy Spectrum Disorder; Evaluation of Cortical Auditory Evoked Potential Thresholds in a Hearing Impaired and Normal Hearing Neonate*

### **DEPARTMENT, COLLEGE, & UNIVERSITY SERVICE & LEADERSHIP**

2022-present Co-Director, BYU Autism Connect Research Group  
 2022-present Member, McKay School of Education Faculty Advisory Council  
 2022-present Chair, McKay School of Education Scientific Review Committee, Brigham Young University  
 2021-2022 Member, McKay School of Education Scientific Review Committee, Brigham Young University  
 2020-present Member, McKay School of Education Awards Committee, Brigham Young University  
 2019-present Member, Strategic Planning and Curriculum Committee, Communication Disorders Department, Brigham Young University  
 2019-present Member, New Faculty Hiring Committee, Communication Disorders Department, Brigham Young University  
 2019-present Faculty Chair and Advisor, BYU Audiology Club, Communication Disorders, Brigham Young University  
 2020-2022 Ad Hoc member (Audiology), Curriculum Committee, Communication Disorders Department, Brigham Young University

### **NATIONAL / INTERNATIONAL SERVICE**

2022 Invited Reviewer, American Speech-Language Hearing Foundation Graduate Student Scholarships  
 2022 Editor, *Neuroplasticity across the lifespan: how sensory inputs shape and modulate brain activity*, Research Topic, Frontiers in Neuroscience  
 2020-2022 Invited Grant Reviewer, *Misophonia Research Fund*  
 2021 Invited session moderator, International Evoked Response Audiometry Study Group, online (due to COVID-19 restrictions)

### **PEER REVIEW SERVICE**

2022 Invited Reviewer, *Frontiers in Neuroscience*  
 2022 Invited Reviewer, *iScience*  
 2021 Invited Reviewer, *International Journal of Pediatric Otorhinolaryngology*

2021	Invited Reviewer, <i>PLOS One</i>
2021	Invited Reviewer, <i>Brain Sciences</i>
2020	Invited Reviewer, <i>Journal of Speech, Language, and Hearing Research</i>
2020-2023	Invited Reviewer, <i>Ear and Hearing</i>
2020	Invited Reviewer, <i>Biological Psychiatry</i>
2020	Invited Reviewer, <i>Molecular Autism</i>
2019	Invited Reviewer, <i>Brain Imaging and Behavior</i>
2018, 2019	Invited Reviewer, <i>PeerJ</i>
2011-2020	Invited Reviewer, <i>International Journal of Audiology</i>
2017	Invited Reviewer, <i>European Journal of Neuroscience</i>
2017	Invited Reviewer, <i>Trends in Hearing</i>
2016	Invited Reviewer, <i>Hearing Research</i>
2010-2015	Reviewer & SLHS Representative, Institute of Cognitive Science Research/Travel Award Review Committee
2012	Mentored student reviewer, <i>Ear and Hearing</i>

## **COMPUTER, PROGRAMMING, AND RESEARCH TOOL PROFICIENCIES**

Neuroimaging Modalities: - EEG (low- and high-density)—Neuroscan, EGI, Biologic  
- MRI/fMRI—Siemens, GE

Software Packages: Matlab, SPM, EEG Lab, SPSS, Microsoft Office Suite, E-Prime, Neuroscan EEG, Electrical Geodesics EEG, Biologic EEG, Gift Toolbox, Conn Toolbox, Zoom, Camtasia

## **PROFESSIONAL MEMBERSHIP**

2021-present	Member, International Evoked Response Audiometry Research Group
2020-present	Member, International Society for Autism Research
2019-present	Member, Organization for Human Brain Mapping
2010-present	Member, American Speech Language and Hearing Association
2017-2018	Member, Flux Congress
2015-2016	Member, The Autism Society
2014-2016	Member, Association for Research in Otolaryngology
2013-2014	Member, Cognitive Neuroscience Society
2013-2014	Member, Society for Neuroscience
2004-2011	Member, American Academy of Audiology

## **CLINICAL CERTIFICATION**

2014-present	Certificate of Clinical Competence in Audiology (CCC-A), American Speech-Language-Hearing Association
--------------	---

## **CLINICAL EXPERIENCE AND TRAINING**

2020-present	Hub Team member, ECHO Autism for Rural Healthcare Providers, Western Region (Utah, Wyoming, Montana, Idaho, North Dakota)
2019-present	Training in administration and scoring of the Autism Diagnostic Observation Scale (ADOS)
2019-present	Licensed Audiologist, State of Utah
2008-2019	Licensed Audiologist, State of Colorado
2008-2015	Research Audiologist, Brain and Behavior Laboratory, Speech, Language and Hearing Sciences Department, University of Colorado at Boulder
2008-2015	Early Intervention Provider and Family Facilitator, Colorado Home Intervention Program (CHIP)
2009	Expert Witness (Audiologist), Gilpin County Courts, Gilpin County, CO
2006	Volunteer Audiologist, Mante Mexico Medical Mission (organized by Boulder Community Hospital), Mante Mexico

2005-2008      Audiology Graduate Clinician, Greater Denver / Boulder area, CO (sites included University of Colorado Hospital, The Children's Hospital, Denver Health Hospital, Boulder Community Hospital, Boulder Valley School District, University of Colorado at Boulder Hearing Center)

### **TRAINING CERTIFICATES**

2021      Utah Regional Leadership Education in Neurodevelopmental Disorders: Autism Enhanced Track (URLEND-AE), University of Utah, Salt Lake City, UT  
2020      Writing Matters, Brigham Young University, Provo, UT  
2020      Publish and Flourish, Brigham Young University, Provo, UT  
2020      Utah Regional Leadership Education in Neurodevelopmental Disorders (URLEND), University of Utah, Salt Lake City, UT  
2019      Effective Teaching – CTL, Brigham Young University, Provo, UT  
2018      Connectivity Course, Martinos Neuroimaging Center, Boston, MA  
2015, 2017    fMRI Acquisition and Analysis Course, The Mind Research Network, Boulder, CO

### **OTHER EXPERIENCE**

2008-2015      Research Audiologist and Laboratory Manager, Brain and Behavior Laboratory, University of Colorado at Boulder

### **LANGUAGES WRITTEN AND SPOKEN**

English & Spanish