# **Bradley E. White**

Curriculum Vitae, May 2020

**Address** Gallaudet University

Petitto Brain and Language Laboratory for Neuroimaging (BL2) Sorenson Language and Communication Center, Room 1101

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# **Positions and Employment**

2019 – Pres.	Neuroimaging Scientist, Petitto Brain and Language Laboratory for Neuroimaging (BL2;
	Prof./Dr. Laura-Ann Petitto, Founder, Science Director, Sr. Cognitive Neuroscientist), Gallaudet
	University, Washington, DC

- 2015 2019 Doctoral Research Fellow, Ph.D. in Educational Neuroscience (PEN) Program, National Science Foundation and Gallaudet University's Science of Learning Center, Visual Language and Visual Learning (VL2), Gallaudet University, Washington, DC
- 2015 2019 Graduate Research Assistant, Langdon Language and Educational Neuroscience Laboratory (LENS; Dr. Clifton Langdon, Science Director), Gallaudet University, Washington, DC
- 2014 2015 Graduate Research Assistant, Petitto Brain and Language Laboratory for Neuroimaging (BL2; Prof./Dr. Laura-Ann Petitto, Founder, Science Director, Sr. Cognitive Neuroscientist), Gallaudet University, Washington, DC
- 2012 2014 Undergraduate Honors Research Fellow, Department of Speech, Language and Hearing Sciences, Hearing and Speech Clinic, Gallaudet University, Washington, DC

#### Education

2019	Ph.D., Educational Neuroscience, Ph.D. in Educational Neuroscience (PEN) Program, National
	Science Foundation and Gallaudet University's Science of Learning Center, Visual Language
	and Visual Learning (VL2), Gallaudet University, Washington, DC
2014	Honors B.S., summa cum laude, Communication Sciences and Disorders, Minor in Psychology,
	The Honors College at Texas A&M University-Kingsville, Kingsville, TX

#### Other Experience and Professional Memberships

Other Experience and Professional Memberships		
2019 – Pres.	Member, Cognitive Neuroscience Society	
2018 – Pres.	Ad-hoc Reviewer, Society for Functional Near-Infrared Spectroscopy	
2018 – Pres.	Member, Society for Neuroscience	
2018 – Pres.	Member, Advances and Perspectives in Auditory Neuroscience	
2018 – Pres.	Member, Society for the Neurobiology of Language	
2018 – Pres.	Member, Mid-Atlantic Symposium on Hearing	
2018 – 2018	Teaching Assistant, New Directions in Neuroethics, Gallaudet University	
2018 – 2018	Teaching Assistant, Contemporary Methods in Neuroimaging, Gallaudet University	
2017	Certificate, Getting and Cleaning Data, Johns Hopkins University on Coursera	
2017	Certificate, R Programming, Johns Hopkins University on Coursera	

2017 Certificate, The Data Scientist's Toolbox, Johns Hopkins University on Coursera

2017 – 2017 Visiting Student Researcher, Neuroplasticity and Development, Johns Hopkins University

- 2016 2017 Chair-Elect, Student Leadership Team, NSF-Gallaudet Science of Learning Center, VL2
- 2016 2016 Visiting Student Researcher, Neuroplasticity, Georgetown University Medical Center
- 2016 Certificate, fMRI, Center for Functional & Molecular Imaging, Georgetown Univ. Medical Center
- 2015 2019 President's List Scholar, Graduate School, Gallaudet University
- 2015 2019 Student Scholar, NSF-Gallaudet University Science of Learning Center, VL2
- 2015 2016 Ad-hoc Member, Research Committee, The Graduate Student Association, Gallaudet University
- 2015 2015 Consultant, Speech, Hearing, and Aural (Re)habilitation Program, Gallaudet University
- 2015 2015 Teaching Assistant, Audiology/Hearing Tech. for Educators & Counselors, Gallaudet University Certificate, fNIRS, NSF-Gallaudet, Petitto Brain and Language Laboratory for Neuroimaging
- 2014 2019 Ad-hoc Reviewer, VL2 Student Review Committee, Gallaudet University
- 2014 2015 Member, Student Academy of Audiology, Gallaudet University
- 2013 2014 Sole Founder and President, Student Audiology Forum, Texas A&M University-Kingsville
- 2013 2014 Member, Texas Speech, Language, and Hearing Association
- 2012 Pres. Member, (National Student/American) Speech, Language, and Hearing Association

#### **Honors and Awards**

- 2020 Ph.D. in Educational Neuroscience Outstanding Research Award, Gallaudet University
- 2019 Travel Award (Helsinki, Finland), Office of the Dean, Graduate School, Gallaudet University
- 2019 Travel Award (San Francisco, CA), Office of the Dean, Graduate School, Gallaudet University
- 2018 Travel Award (Boston, MA), Office of the Dean, Graduate School, Gallaudet University
- 2018 Travel Award (San Diego, CA), Office of the Dean, Graduate School, Gallaudet University
- 2018 Travel Award (Québec City, Canada), Office of the Dean, Graduate School, Gallaudet University
- 2018 Travel Award (Québec City, Canada), Society for the Neurobiology of Language
- 2017 Ph.D. in Educational Neuroscience Research-Based Translation Award, Gallaudet University
- 2017 Training Scholarship (Johns Hopkins University), T. R. and V. M. Johnson Scholarship Foundation
- 2014 Honors B.S. with distinction (summa cum laude), The Honors College, Texas A&M University-Kingsville
- 2014 Travel Award (Houston, TX), The Honors College, Texas A&M University-Kingsville
- 2013 Best Undergraduate Presentation, Texas A&M University-System Pathways Research Symposium
- 2013 Debater of the Year, Department of Art, Communication, and Theater, Texas A&M University-Kingsville

## **Manuscripts**

- 1. **White, B.E.** (2019, July). The role of auditory experience in the neurocognitive systems for everyday and effortful listening (Doctoral dissertation, Gallaudet University).
- 2. **White, B. E.** (2017, May). A longitudinal investigation of the relation between numerical estimation skill and brain activation during arithmetic (Doctoral qualifying paper, Gallaudet University).
- **3. White, B. E.** (2014, May). *Auditory Attention Processing in Aphasia* (Honors B.S. thesis, Texas A&M University-Kingsville).

## **Conference Presentations and Posters**

- 1. **White, B.E.**, & Langdon, C. (2019, August). *Listening experience and syntactic complexity modulate neural networks for speech and language: A functional near-infrared spectroscopy study.* Poster presentation at the annual meeting of the Society for the Neurobiology of Language, Helsinki, Finland.
- 2. **White, B. E.**, Berger, L., & Langdon, C. (2019, March). *Early auditory experience modulates resting state functional connectivity networks: A functional near-infrared spectroscopy study.* Poster presentation at the annual meeting of the Cognitive Neuroscience Society, San Francisco, CA.
- 3. **White, B. E.**, Kushalnagar, P., & Langdon, C. (2018, November). *The role of auditory experience in patient reported outcomes and task performance for effortful listening.* Poster presentation at the annual convention of the American Speech, Language, and Hearing Association, Boston, MA.
- 4. White, B. E., & Langdon, C. (2018, November). Functional connectivity in the language network in response to syntactic complexity and acoustic degradation: A functional near-infrared spectroscopy study. Poster presentation at the annual meeting of the Society for Neuroscience, San Diego, CA.

- 5. **White, B. E.**, & Langdon, C. (2018, November). *The role of auditory experience in the neural systems for effortful listening.* Poster presentation at the annual symposium on Advances and Perspectives in Auditory Neuroscience, San Diego, CA.
- 6. **White, B. E.**, & Langdon, C. (2018, October). *The role of auditory experience in the neurobiological systems for effortful listening*. Translational presentation at the annual Gallaudet University Research Expo on Interdisciplinary Research, Washington, DC.
- 7. **White, B. E.**, & Langdon, C. (2018, August). *Hierarchical processing of degraded speech: A functional near-infrared spectroscopy study.* Poster presentation at the annual meeting of the Society for the Neurobiology of Language, Québec City, QC, Canada.
- 8. **White, B. E.**, & Langdon, C. (2018, January). *Auditory experience and the neurobiological systems for effortful listening: A combined optical neuroimaging and thermal infrared imaging study*. Presentation at the Mid-Atlantic Symposium on Hearing, College Park, MD.
- 9. **White, B. E.**, & Langdon, C. (2017, March). *Investigating the neural systems for effortful listening: A combined fNIRS and fIRT imaging study*. Poster presentation at the annual Gallaudet University Research Expo on, Washington, DC.
- 10. **White, B. E.** (2014, May). *Auditory attention processing in aphasia*. Presentation at the Texas A&M University-Kingsville Honors College Research Symposium, Kingsville, TX.
- 11. **White, B. E.**, Swartz, E., & Ball, A. (2014, March). *Non-language auditory attention processing in aphasia*. Presentation at the 58th Annual Convention and Exhibition of the Texas Speech-Language-Hearing Association, Houston, TX.
- 12. **White, B. E.**, Swartz, E., & Ball, A. (2013, November). *Non-language auditory attention processing in aphasia*. Presentation at the Texas A&M University System Annual Pathways Student Research Symposium, Kingsville, TX.

## **Invited Talks and Guest Lectures**

- White, B. E. (2020, February). Listening Effort and Neurocognitive Plasticity in Hearing Aid and Cochlear Implant Users. Presentation at the Department of Linguistics and Cognitive Science, University of Delaware, Newark, DE.
- 2. **White, B. E.** (2018, October). *Descriptive and inferential statistics in R.* Presentation at the Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 3. **White, B. E.** (2018, September). *Statistical programming in R*. Presentation at the Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 4. **White, B. E.** (2018, May). *The role of auditory experience on the neurobiological systems for effortful listening*. Presentation at the Neuroimaging with fNIRS: Basic to Advanced Concepts workshop hosted by NIRx Medical Technologies, Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 5. **White, B. E.** (2018, April). Resting state functional connectivity: Methodological and statistical approaches for functional near-infrared spectroscopy. Presentation at the Language and Educational Neuroscience Laboratory, Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 6. **White, B. E.** (2018, April). *Task-based functional connectivity: Methodological and statistical approaches for functional near-infrared spectroscopy.* Presentation at the Language and Educational Neuroscience Laboratory, Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 7. **White, B. E.** (2017, October). *Auditory perception in sensorineural hearing loss*. Presentation at the Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD.
- 8. **White, B. E.** (2017, September). *Programming and inferential statistics in R.* Presentation at the Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.

- 9. **White, B. E.** (2017, September). *Introduction to programming and descriptive statistics in R and RStudio*. Presentation at the Ph.D. in Educational Neuroscience Program, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 10. **White, B. E.** (2017, June). *Language acquisition in the auditory, visual, and tactile modalities.* Presentation at the annual National Federation of the Blind Youth Slam, Towson, MD.
- 11. **White, B. E.** & Berteletti, I. (2017, June). *A longitudinal investigation of the relation between numerical estimation skill and brain activation during arithmetic*. Presentation at the Neuroplasticity and Development Laboratory, Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, MD.
- 12. **White, B. E.** (2016, June). *Zombie brainz: An introduction to neuroimaging data analysis for young scholars*. Presentation at the annual Young Scholars Program: Exploring the Sciences, Gallaudet University, Washington, DC.
- 13. Andriola, D., & **White, B. E.** (2016, May). *Early language acquisition*. Presentation at the Family Support and Research Center, Maryland School for the Deaf-Columbia, Columbia, MD.
- 14. Kubicek, E., **White, B. E.**, & Williams, J. (2015, December). *Speech, language, and hearing sciences*. Presentation at the annual Student Network Retreat, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 15. Contreras, J., & White, B. E. (2014, November). Language assessments and what they mean for researchers. Presentation at the annual Student Network Retreat, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 16. White, B. E., & Harvey, S. (2014, November). The Petitto Brain and Language Laboratory for Neuroimaging (BL2): Brief introduction and overview. Presentation at the annual Student Network Retreat, NSF-Gallaudet University Science of Learning Center, Visual Language and Visual Learning, Washington, DC.
- 17. **White, B. E.** (2014, March). *Congenital sensorineural hearing loss: A narrative and commentary*. Presentation at the American Sign Language and Interpreting Program Forum, Del Mar College, Corpus Christi, TX.
- 18. **White, B. E.**, Elizondo, S., & Garcia, M. (2014, February). *Introduction to hearing amplification devices, aids, and implants*. Presentation at the Student Audiology Forum, Texas A&M University-Kingsville, Kingsville, TX.
- 19. **White, B. E.** (2014, January). *Introduction to models of disability*. Presentation at the Student Audiology Forum, Texas A&M University-Kingsville, Kingsville, TX.
- 20. **White, B. E.** (2013, November). Overview of the electrophysiology of the brain and introduction to electroencephalography (EEG). Presentation at the Department of Clinical Health Sciences, Texas A&M University-Kingsville, Kingsville, TX.
- 21. **White, B. E.** (2013, November). *The use of electroencephalography in aphasia and apraxia*. Presentation at the Department of Clinical Health Sciences, Texas A&M University-Kingsville, Kingsville, TX.
- 22. **White, B. E.**, Becerra, M., Elizondo, S., & Garcia, M. (2013, November). *Introduction to hearing amplification devices, aids, and implants*. Presentation at the Student Audiology Forum, Texas A&M University-Kingsville, Kingsville, TX.
- 23. **White, B. E.** (2013, October). *Hearing loss and hearing loss prevention*. Presentation at the Student Audiology Forum, Texas A&M University-Kingsville, Kingsville, TX.
- 24. **White, B. E.** (2013, September). *Audiology: An overview*. Presentation at the Student Audiology Forum, Texas A&M University-Kingsville, Kingsville, TX.
- 25. **White, B. E.** (2013, June). *Electroencephalography (EEG): An overview and timeline*. Presentation at the Department of Clinical Health Sciences, Texas A&M University-Kingsville, Kingsville, TX.

### Other Deliverables

- 1. **White, B. E.** (2018, April). *Building the visual vocabulary: A resource guide on vocabulary development in young deaf and hard-of-hearing children*. Available at <a href="https://www.visvoc.bradleywhite.net">https://www.visvoc.bradleywhite.net</a>
- 2. White, B. E. (2018, April). Tips for facilitating vocabulary development: A resource guide on vocabulary development in young deaf and hard-of-hearing children. Available at <a href="https://www.visvoc.bradleywhite.net/assets/files/white16-tipsforfacilitatingvocabularydevelopment.pdf">https://www.visvoc.bradleywhite.net/assets/files/white16-tipsforfacilitatingvocabularydevelopment.pdf</a>

- 3. White, B. E. (2018, April). Language development timeline (0-5 years old): A resource guide on vocabulary development in young deaf and hard-of-hearing children. Available at <a href="https://www.visvoc.bradleywhite.net/assets/files/white16-languagedevelopmenttimeline.pdf">https://www.visvoc.bradleywhite.net/assets/files/white16-languagedevelopmenttimeline.pdf</a>
- 4. Parks, A., **White, B. E.**, Lancaster, L., and Bakke, M. (2018, April). *The test-retest reliability of the Early Speech Perception Test in adults with severe to profound hearing levels*. Poster presentation at the Department of Hearing, Speech, and Language Sciences, Gallaudet University, Washington, DC.
- 5. Parks, A., **White, B. E.**, Lancaster, L., and Bakke, M. (2018, February). The role of pure-tone average and auditory linguistic experience on word recognition and pattern perception ability in adults with severe to profound hearing levels. Poster presentation at the Department of Hearing, Speech, and Language Sciences, Gallaudet University, Washington, DC.

## **Pending Research Support**

NIH NICHD K99/R00. White (PI)

04/2021 - 03/2026

School readiness and developmental neuroplasticity in children with hearing aids and cochlear implants Roles: White (PI), Petitto (Mentor)

Total Award: \$1,066,560

RSIA PRF, Gallaudet University, White (PI)

10/2020 - 09/2023

School readiness and developmental neuroplasticity in children with hearing aids and cochlear implants

Roles: White (PI), Petitto (Co-PI)

Total Award: \$105,000

# **Completed Research Support**

RSIA SRG, Gallaudet University, White (PI)

03/2018 - 08/2019

The role of auditory experience in the neurocognitive systems for everyday and effortful listening

Roles: White (PI), Langdon (Co-PI)

Total Award: \$2,500

PEN Doctoral Research Fellowship, Gallaudet University

08/2015 - 08/2019

Roles: White (Fellow), Langdon (Mentor) Pre-doctoral award to Bradley E. White

Total Award: \$208,859

#### Teaching (Gallaudet University)

2018 Fall Teaching Assistant. New Directions in Neuroethics

2018 Fall Teaching Assistant, Contemporary Methods in Neuroimaging

2015 Spring Teaching Assistant, Audiology & Hearing Technology for Educators & Counseling Professionals

# Languages

English, fluent, native

American Sign Language, fluent