

William B. Salloom

Assistant professor

University of Nebraska-Lincoln

Department of Special Education and Communication Disorders

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Education

- 2022** **PhD, Integrative Neuroscience**, PULSe Interdisciplinary Program,
Purdue University - Speech Language & Hearing Sciences, *West Lafayette, IN*
- Thesis title: Temporal dynamics of psychoacoustic and physiological measures of cochlear gain reduction
Committee members: Elizabeth Strickland (chair), Hari Bharadwaj, Michael Heinz, Jeffrey Lucas
- 2014** **B.A. Psychology**, California State University Northridge,
Northridge, CA. Cum Laude
- 2012** **A.A. Criminal Justice**, Los Angeles Pierce College,
Woodland Hills, CA

Research Experience

- 2025 – current** **Assistant Professor**
Auditory Mechanics and Perception (AMP) Lab (Principal Investigator)
Department of Special Education and Communication Disorders (SECD)
- 2022 – 2025** **Postdoctoral Research Fellow**
University of Southern California
USC Caruso Department of Otolaryngology – Head and Neck Surgery
Postdoc Mentor: Christopher A. Shera (Auditory Physics Group)
- 2015 – 2022** **Graduate Research Assistant**
Purdue University; PULSe PhD program
Home department; Speech, Language, & Hearing Sciences
Graduate advisor: Elizabeth Strickland (Psychoacoustics Lab)
- 2012 – 2014** **Undergraduate Research Assistant**
California State University Northridge
Undergraduate advisor: Dr. Aida Metzenberg (Genetic Laboratory)

Publications

Peer reviewed journal articles

Salloom, W.B., Bharadwaj, H, Strickland, E.A. The effects of broadband elicitor duration on transient-evoked otoacoustic emissions and a psychoacoustic measure of gain reduction. *Res Sq [Preprint]*. **2025** Aug 12:rs.3.rs-6753082. DOI: <https://doi.org/10.21203/rs.3.rs-6753082/v2>. PMID: [40502776](#); PMCID: [PMC12155214](#).

Salloom, W.B., Bharadwaj, H., & Strickland, E. A. (2023). The effects of broadband elicitor duration on a psychoacoustic measure of cochlear gain reduction. DOI: <https://doi.org/10.1121/10.0017925>; PMID: [37092950](#); PMCID: [PMC10257528](#).

Salloom, W.B., Strickland, E.A. (2021). The effect of broadband elicitor laterality on psychoacoustic gain reduction across signal frequency. *The Journal of the Acoustical Society of America*, 150, 2817-2835. <https://doi.org/10.1121/10.0006662>; PMID: [34717476](#); PMCID: [PMC8520488](#).

Peer reviewed conference papers

Salloom, W.B., C.A., Shera, K.K., Charaziak, (2024). “Perceptual masking and cochlear suppression measured using frequency sweeps,” *Mechanics of Hearing Workshop 2024 (MoH 2024)*. Ann Arbor, Michigan, USA. Zenodo. DOI: <https://doi.org/10.5281/zenodo.13004486>.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A. (2024). “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a psychoacoustic measure of gain reduction,” *Mechanics of Hearing 2022*. Melville, NY: American Institute of Physics. DOI: <https://doi.org/10.1063/5.0189528>.

Strickland, E.A., **Salloom, W.B.**, Hegland, E.L. (2018). “Evidence for gain reduction by a precursor in an on-frequency forward masking paradigm,” in *Special Issue on Hearing: Psychophysics, Physiology, and Models*, *Acta Acustica united with Acustica*, Volume 104, pp. 809-812. DOI: [10.3813/AAA.919229](https://doi.org/10.3813/AAA.919229); PMID: [31736681](#); PMCID: [PMC6858064](#).

Thesis

Salloom, W.B., (2022): Temporal dynamics of psychoacoustic and physiological measures of cochlear gain reduction. Purdue University Graduate School. DOI: <https://doi.org/10.25394/PGS.19666257.v1>.

Funding, Awards, & Achievements

- 2025 - 2026** NIH (NIDCD) R01 Research Award – *Subcontract*
Award ID: 5R01DC001641-34
Title: Auditory Processing of Complex Sounds
Start: August, 1st 2025 – End: July, 31st 2026
- 2024 - 2025** NIH (NIDCD) F32 Fellowship - Ruth L. Kirschstein Predoctoral Individual National Research Service Award
Award ID: 1F32DC021862-01
PI: William B. Salloom
Title: Human Cochlear Masking and Suppression Measured using Dynamic Stimuli
Start: July, 1st 2024 – End: Jun, 30th 2025
- 2023** Hearing and Communication Neuroscience – NIH T32 Postdoctoral Fellowship, University of Southern California
- 2022** Hearing and Communication Neuroscience – NIH T32 Postdoctoral Fellowship, University of Southern California
- 2022** Mechanics of Hearing 2022 Travel Scholarship
- 2020** Ruth L. Kirschstein Predoctoral Individual National Research Service Award – NIH F31 Fellowship (Submitted & Scored, not funded)
- 2019** Ruth L. Kirschstein Predoctoral Individual National Research Service Award – NIH F31 Fellowship (Submitted & Scored, not funded)
- 2019** Interdisciplinary Training Program in Auditory Neuroscience (TPAN) – NIH T32 Fellowship, Purdue University
- 2018** Purdue Institute for Integrative Neuroscience (PIIN) Travel Grant
- 2016** Most outstanding first-year poster award, Purdue University
- 2015** Lynn Fellowship, Purdue University

Research Presentations

Salloom, W.B., “Perceptual Masking and Cochlear Suppression Measured using Frequency Sweep” Invited speaker talk, Seminars in Hearing Research at Purdue (SHRP). November 14th, 2024.

Salloom, W.B., Shera, C.A., Charaziak K.K., “Perceptual Masking and Cochlear Suppression Measured Using Frequency Sweeps,” Poster presentation – The 15th Mechanics of Hearing workshop. Ann Arbor, Michigan, June 8 - 14, 2024.

Salloom, W.B., Shera, C.A., Charaziak K.K., “Exploring Human Cochlear Masking and OAE Suppression at Different Cochlear Locations using Frequency Sweeps.” Poster presentation – 51st Annual Scientific and Technology Conference of the American Auditory Society, Scottsdale, AZ, Feb 16th, 2024.

Salloom, W.B., Shera, C.A., Charaziak K.K., “Exploring Human Cochlear Masking and OAE Suppression at Different Cochlear Locations using Frequency Sweeps.” Poster presentation - Association for Research in Otolaryngology Midwinter Meeting, Anaheim, CA, Feb 6th, 2024.

Salloom W.B., “Exploring human cochlear suppression using linear frequency sweeps.” Human & Communication Neuroscience (HCN) retreat - Catalina Island. University of Southern California, May 2nd, 2023.

Salloom W.B., “Human cochlear masking and OAE suppression measured using dynamic stimuli.” Invited speaker talk - Departmental Hearing Seminar in the Speech, Language and Hearing Sciences (SLHS) at Purdue University, March 30th, 2023.

Salloom W.B., “Human cochlear masking and OAE suppression measured using dynamic stimuli.” Otolaryngology-Human & Communication Neuroscience (HCN) seminar series at University of Southern California, March 16th, 2023.

Salloom, W.B., Shera, C.A., Charaziak K.K., “Human cochlear masking and OAE suppression measured using dynamic stimuli.” Poster presentation - Association for Research in Otolaryngology Midwinter Meeting, 2023. <https://doi.org/10.5281/zenodo.8387989>.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., A Comparison of Gain Reduction Estimated from Behavioral Measures and Various Transient Evoked Otoacoustic Emission Measures as a function of Broadband Elicitor Duration” Poster session presented at: SoCal Hearing Conference; University of California, Irvine. Sept 17, 2022.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a psychoacoustic measure of gain reduction,” The 14th Mechanics of Hearing workshop. Helsingor, Denmark, July 28th, 2022.

Salloom, W.B., “A Comparison of Gain Reduction Estimated from Behavioral Measures and Various Transient Evoked Otoacoustic Emission Measures as a function of Broadband Elicitor Duration” Departmental Hearing Seminar in Speech Language and Hearing Sciences (SLHS) at Purdue University, March 3rd, 2022.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., A Comparison of Gain Reduction Estimated from Behavioral Measures and Various Transient Evoked Otoacoustic Emission Measures as a function of Broadband Elicitor Duration” Poster session presented at: 45rd Annual Midwinter Meeting of the Association of Research in Otolaryngology; 2022 Feb 5-9; (Virtual).

Salloom, W.B., “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction” Departmental Hearing Seminar in Speech Language and Hearing Sciences (SLHS) at Purdue University, Sept 14th, 2021.

Strickland, E. A. (Presenter), Skaggs, M., Hopkins, A., Mielnicki, N., **Salloom, W. B.**, Morris, H., Holt, A., “A Summary of Behavioral Measures of Cochlear Gain and Gain Reduction in Listeners & with Normal Hearing or Minimal Cochlear Hearing Loss” Acoustical Society of America (virtual), May 2021.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction” Departmental “Brown bag” Seminar in Speech, Language, and Hearing Sciences (SLHS) at Purdue University, 2020, Mar 2nd.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction” Departmental Seminar in Speech, Language, and Hearing Sciences (SLHS) at Indiana University, 2020, Feb 28th.

Salloom, W.B., Wade, K., Bharadwaj, H.B., Strickland, E.A., “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction”, Departmental Hearing Seminar in Speech Language and Hearing Sciences (SLHS) at Purdue University, 2020, Feb 27th.

Salloom, W.B., Bharadwaj, H.B., Strickland, E.A., (2020). “The effect of broadband elicitor duration on transient-evoked otoacoustic emissions and a behavioral measure of gain reduction”. Poster session presented at: 43rd Annual Midwinter Meeting of the Association of Research in Otolaryngology; 2020 Jan 25-29; San Jose, CA.

Salloom, W.B., Oral presentation on Jennings, Strickland, & Heinz (2009) paper, “Precursor effects on behavioral estimates on frequency selectivity and gain in forward masking”. Auditory Neuroscience Journal Club (ANJC) at Purdue University, 2019, Nov 4th.

Salloom, W.B., Bharadwaj, H.M., Strickland, E.A., “The Effect of Broadband Elicitor Duration on Transient-Evoked Otoacoustic Emissions and Psychoacoustic Measure of Gain Reduction”. *Acoustical Society of America, Louisville, KY, 2019.*

Salloom, W.B., Bharadwaj, H.M., Strickland, E.A., “Physiological and Psychoacoustic Measures of Two Different Auditory Efferent Systems”. Departmental Hearing Seminar in Speech Language and Hearing Sciences (SLHS) at Purdue University, 2019, Mar 7th.

Salloom, W.B., Bharadwaj, H.M., Strickland, E.A., (2019). “Physiological and Psychoacoustic Measures of Two Different Auditory Efferent Systems”. Poster session presented at: 42nd Annual Midwinter Meeting of the Association of Research in Otolaryngology; 2020 Feb 9-13; Baltimore, MD.

Salloom, W.B., Bharadwaj, H.M., Strickland, E.A., “Physiological and Psychoacoustic Measures of Two Different Auditory Efferent Systems”. Departmental “Brown bag” Seminar in Speech Language and Hearing Sciences (SLHS) at Purdue University, 2019, Feb 4th.

Strickland, E.A. (Presenter), **Salloom, W.B.**, Hegland, E.L. (2018). “Evidence for gain reduction by a precursor in an on-frequency forward masking paradigm,” Talk presented at the International Symposium on Hearing, July, Snekkersten, Denmark.

Strickland, E. A., Morris, H., Skaggs, M., **Salloom, W. B.**, Holt, A. “Behavioral Measures of Cochlear Gain and Gain Reduction in Listeners with Normal Hearing or Minimal Cochlear Hearing Loss”. *Acoustical Society of America, Minneapolis, MN, May 2018.*

Salloom, W.B., Strickland, E.A., “The Effect of an Ipsilateral, Contralateral, and Bilateral & Precursor on Gain Reduction Across the Frequency Range”. *Association of Research in Otolaryngology, San Diego, CA, Feb 10-15, 2018.*

Salloom, W. B., “The Effect of an Ipsilateral, Contralateral, and Bilateral Precursor on Gain Reduction Across the Frequency Range”. Departmental Hearing Seminar in Speech Language and Hearing Sciences (SLHS) at *Purdue University, Jan 25th, 2018.*

Salloom, W. B., Strickland, E. A., “The effect on an Ipsilateral, Contralateral, and Bilateral Precursor on Gain Reduction Across the Frequency Range”. *PIIN retreat, St. Joseph, MI Spring 2017.*

Salloom, W.B., Leung Y.F., “Visiotracker Optokinetic Response – An Efficient and Selective Method to Screen Retinal Degenerative Zebrafish” *Purdue University, Best poster/presentation award - Spring Reception PULSe, 2016.*

Cosco A., **Salloom, W.B.**, Metzenberg A. “Developing Treatment for Neurofibromatosis Type 1”. *American Society of Human Genetics, San Diego, CA, 2014.*

Teaching Experience

Fall 2025 – University of Nebraska-Lincoln

All courses were co-taught through Spiral curriculum. All courses were graduate level:

SLPA 901 Auditory Physiology & Assessment

SLPA 907 Pediatrics and Electrophysiology

SLPA 913 Advanced Electrophysiology and Amplification

Responsibilities modifying slides, teaching portions of the course, and grading exams

Fall 2019 – Teaching Assistant – Purdue University

Course: SLHS 503 Auditory Perception

Graduate level course

Responsibilities include teaching portions of the course and grading exams

Fall 2018 – Teaching Assistant – Purdue University

Course: SLHS 503 Auditory Perception

Graduate level course

Responsibilities include teaching portions of the course and grading assignments/exams

Program and Software Skills

- MATLAB
- R-studio
- SPSS
- Microsoft packages (e.g., Excel, Word, Powerpoint, Publisher, Sharepoint)
- Blackboard, Canvas

Professional Organizations and Memberships

2023 - present	<i>Member</i> , American Auditory Society (AAS)
2018 - present	<i>Member</i> , Acoustical Society of America (ASA)
2018 - present	<i>Member</i> , Association for Research in Otolaryngology (ARO)

Professional Service

Journal Peer Reviewer

2022 – present	Journal of the Acoustical Society of America (JASA)
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Clubs & Organizations

2024	spARO mentorship program – mentor a PhD student
2022	Organizer of the Spiral JC at University of Southern California
2019 – 2020	Secretary and founding officer in the Auditory Neuroscience Association at Purdue (ANAP) Purdue University
2014 – 2015	Treasurer and founding officer of Genetics Society of California State University Northridge

Professional Research Websites

ORCID: <https://orcid.org/0000-0003-1038-3781>

LinkedIn: <https://www.linkedin.com/in/william-salloom-083b096a/>

Google Scholar: <https://scholar.google.com/citations?user=NKtVxiUAAAAJ&hl=en&oi=sra>

Researchgate: <https://www.researchgate.net/profile/William-Salloom>

Twitter/X: https://x.com/William_Salloom