Northwestern University

MARCH 2026

NUCASLL News

Monthly updates from the Northwestern University Center for Audiology, Speech, Language, and Learning

Research, Innovation, and Community Engagement

This month we are highlighting the ways research, clinical care, and community programming intersect at the Northwestern University Center for Audiology, Speech, Language, and Learning (NUCASLL). Through collaborations across labs, faculty expertise, and student involvement, our work continues to push forward new approaches to understanding and treating communication challenges.

Faculty Research Highlight: Cochlear Implant Innovation

NUCASLL is also proud to highlight the work of Dr. Monita Chatterjee, whose research focuses on improving outcomes for individuals using cochlear implants. Her work explores how individuals perceive speech and sound through implant technology and how auditory training and signal processing strategies can enhance communication outcomes.

Dr. Chatterjee's research continues to influence the broader field of audiology and hearing science, helping improve technologies and rehabilitation strategies that support individuals with significant hearing loss.

Break the Blocks

NUCASLL recently hosted its first Break the Blocks Adult Night, an improv-based communication program designed for individuals who stutter. The event was a meaningful success, providing a welcoming space where participants could explore communication through creativity, connection, and humor.

Break the Blocks is a collaboration between NUCASLL and Northwestern's Department of Theatre, and it continues to grow as an inclusive program supporting confidence and self-expression for individuals who stutter.

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Research Spotlight: Advancing Clinical Innovation

NUCASLL is proud to collaborate with Dr. Bharath Chandrasekaran's research team, whose work focuses on understanding how the brain processes speech. Together with the audiology clinic, the lab has been collecting data directly within the clinical environment to help translate research findings into practical tools for patient care.

A major milestone in this collaboration has been the progress made in validating lab-based EEG metrics of neural speech processing on a clinical EEG system. This work represents an important step toward bringing neuroscience-based measures into everyday hearing healthcare.

By integrating research into the clinic, patients with listening challenges can participate in studies that contribute to the development of new diagnostic tools while receiving care. Audiology students are also actively involved in the research process, gaining hands-on experience in clinical research, neuroscience, and data analysis.

This translational approach strengthens the connection between scientific discovery and real-world clinical innovation, helping ensure that new insights ultimately benefit individuals experiencing communication difficulties.

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Dr. Jacie McHaney's research focuses on a common complaint among many adults who struggle to understand speech, especially in noisy environments, even though their hearing tests appear normal. To understand the source of these speech understand problems in the absence of hearing loss, Dr. McHaney and her team are developing a new test that measures how the brain processes speech sounds. Using non-invasive brain recordings (EEG) while individuals listen to speech, this test evaluates how accurately the brain represents phonemes, the smallest units of speech that distinguish words. The goal is to identify listening difficulties that standard hearing tests may miss. Importantly, this research is conducted directly within NUCASLL, allowing patients with listening challenges to participate in studies that help advance new diagnostic tools. Audiology student researchers are also heavily involved, gaining hands-on experience in clinical research, neuroscience, and data analysis. Looking ahead, the team aims to develop a fast, clinic-ready version of this test that could one day become part of routine hearing assessments, improving early identification and treatment of communication difficulties.

Upcoming Events

We are excited to announce the Spring 2026 Break the Blocks workshop series. Each session runs from 5:30 – 7:00 PM and offers a supportive improv-based environment where participants can practice communication, take risks, and build confidence.

Spring Session Schedule:

April 13th – Workshop 1
April 20th – Workshop 2
April 27th – Workshop 3
May 4th – Workshop 4
May 11th – Friends & Family Night
May 18th – Adults Only Session

Research innovation, student involvement, and community partnerships remain central to NUCASLL's mission. We are grateful for the faculty, students, and collaborators whose work continues to expand our understanding of communication and improve care for individuals across our community.

The Northwestern University Center for Audiology, Speech, Language, and Learning

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