

Department of Communication Sciences & Disorders  
Colloquium Series/Distinguished Lecture in Audiology

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Friday, October 24, 2025, 9:30 AM – 11:00 AM

PCD 1147

[TEAMS link](#)

**Innovations with speech in noise assessment:  
the present and the future**

**Abstract**

Since the inception of audiology more than 70 years ago, the default test of speech recognition has been the repetition of monosyllabic words in quiet. This practice has persisted despite increasing awareness that word-recognition scores fail to characterize the deficits faced by patients with hearing difficulties. For example, the top complaint of individuals with hearing loss is difficulty understanding speech in noise, yet word-recognition scores have little to no relation to either perceived or measured hearing difficulties in adverse listening conditions. Thus, there is a significant and longstanding discrepancy between patient concerns and routine audiologic practice. Such concerns could be better addressed by measuring speech-understanding abilities in the presence of background noise. Here we address this issue by characterizing speech in noise abilities in thousands of patients with a wide range of hearing losses and auditory pathologies. We then demonstrate that speech in noise abilities can replace conventional measures of word-recognition in quiet by predicting when patients are likely to have good vs. poor word-recognition abilities. In this way, speech in noise can become the default test of speech recognition in routine audiologic practice. We will also discuss the intersection between audiologic measures of speech recognition and new innovations artificial intelligence that may enable audiologists to better characterize patient function. Making these subtle but profound changes to clinical practice can make the routine audiogram more sensitive to patient concerns and set the stage for the next phase of interventions in hearing healthcare.

**Biography**



I received my undergraduate degree in Communication Sciences and Disorders from The Wichita State University. I then traveled to Vanderbilt University to complete a M.S. in Audiology and Hearing Sciences, before completing a clinical fellowship at Henry Ford Hospital in Detroit, MI with Dr. Gary Jacobson. I subsequently completed a Ph.D. at Northwestern University in Communication Disorders with Dr. Beverly Wright exploring patterns of perceptual learning in individuals with normal hearing. Upon completion of my doctorate, I moved to the New York University School of Medicine for a post-doctoral fellowship in the Department of Otolaryngology. There, I worked with Dr. Mario Svirsky to identify recipients of cochlear implants who have not yet fully adapted to their device, and to provide tools which audiologists could use to modify the map to help these patients. I later joined the faculty at NYU, and also at Montclair State University. In 2015 I became the Chief of Audiology at Stanford, where I oversee the Audiology departments of both Stanford Hospital and the Lucille Packard Children's Hospital.