# UNIVERSITY of ROCHESTER

# Hearing & Balance Research Collective

## Guest Speaker: Lori Holt, PhD

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Carnegie-Mellon University
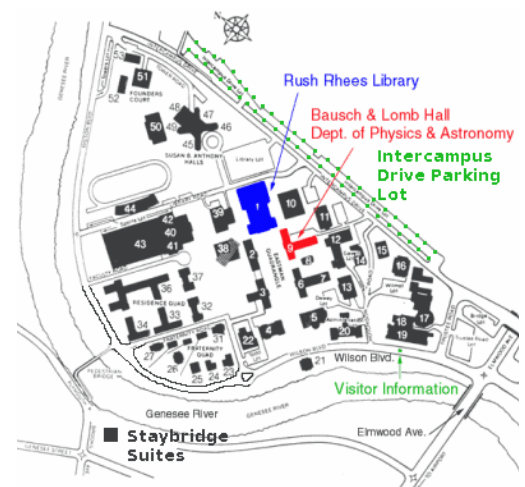
# Listening in on Auditory Learning

Monday, April 3, 2023    12:00 noon

*Bausch & Lomb Hall, Rm 106 (River Campus)*

**Abstract**: Whether overhearing a conversation on the bus, taking in a radio broadcast, or listening to a colleague describe her latest idea, we effortlessly consume a perceptual diet of acoustically complex speech that originates from diverse talkers, and blends with distinct acoustic backgrounds. By some estimates, the input from our own voice alone can average 16,000 words a day. Speech is undeniably significant as a conspecific human communication signal, and it is perhaps the most ubiquitous class of acoustic signal encountered by the human auditory system.

Experience – on both short and long timescales – deeply shapes how we perceive speech. We learn from long-term experience with a native language and, yet, on much shorter timescales, we maintain flexibility to understand speech warped by a KN95 mask or shifted by an unexpected dialect. However, despite rich literatures documenting the many ways experience shapes speech perception, we do not yet fully understand the learning mechanisms that are involved. Today, I will share behavioral and neuroimaging evidence for two distinct types of auditory learning available to support speech communication. At the broadest level, I hope to convince you that the study of speech communication as a flexible, adaptive, experience-dependent skill has much to offer in understanding auditory behavior and – indeed -- human behavior, quite generally.

Captioning Provided