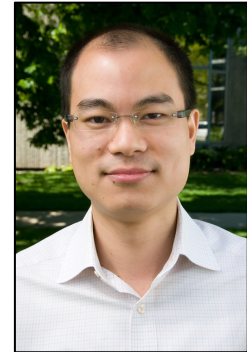


**Keynote 2:** Wednesday, December 9, 1:30-2:30pm

**Patrick Wong**  
*Chinese University of Hong Kong*

**Neurophysiology of Speech Perception:  
Plasticity and Stages of Processing**



Even after years of learning, many adults still have difficulty mastering a foreign language. While the learning of certain aspects of foreign languages, such as vocabulary, can be acquired with nearly native-like proficiency, foreign phoneme and phonological grammar learning can be especially challenging. Most interestingly, adults differ to a large extent in how successfully they learn. In this presentation, I will discuss the potential neural foundations of such individual differences in speech learning, including the associated cognitive, perceptual, neurophysiological, neuroanatomical, and neurogenetic factors, paying particular attention to the contribution of stages of processing along the auditory neural pathway. I will then describe a series of experiments that demonstrate that re-designing a learner's training protocol based on biobehavioral markers can sometimes optimize learning.