2025 KSBNS
Symposium 44

Title: Audiovisual processing in rodents and marmosets

August 27th (Wednesday), 09:00-10:55
Premier Ballroom B, Songdo CONVENSIA, Incheon, Korea

한국뇌신경과학회
The Korean Society for Brain and Neural Sciences

Registration KSBNS2025.org

Organizers

***Seung-Hee Lee* (principal organizer)**

Center for Synaptic Brain Dysfunction,
Institute for Basic Science, Korea
Department of Biology, KAIST, Korea

***Soo Hyun Park* (co-organizer)**

Department of Brain and Cognitive Sciences, KAIST, Korea

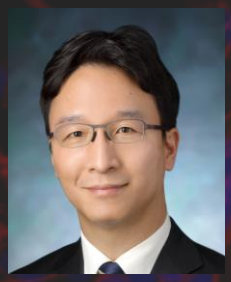
Session Description
: This symposium explores recent findings on audiovisual processing in the mammalian brain and provides insights into decision-making process in dynamic sensory contexts

Speakers

Kenichi Ohki

The University of Tokyo, Japan
"Orthogonalization of spontaneous and stimulus-driven activity by hierarchical neocortical areal network in primates"

Dr. Ohki is a leading expert in visual neuroscience and functional brain mapping. He pioneered advanced imaging techniques to measure the activity of thousands of neurons, enabling significant insights into how the brain processes visual information and inspiring the development of next-generation, brain-inspired artificial intelligence systems.



Ingie Hong

Johns Hopkins University, U.S.A.
"Synaptic molecules tune neuronal feature selectivity"

Dr. Hong investigates how synaptic molecules and circuit-level mechanisms shape cortical computation, sensory processing, and behavior. His work has uncovered how specific molecules and inhibitory circuits in the visual cortex contribute to efficientvisual processing and adaptive learning, offering new avenues to understand cortical function in health and disease.

Soo Hyun Park

KAIST, Korea
"Dynamic visual processing in marmoset extrastriate cortex"

Dr. Park investigates how primate visual systems process dynamic, naturalistic stimuli to support interaction with complex environments. Her research, combining neuroimaging and electrophysiology, has revealed functional subnetworks within face-processing regions of the primate brain, advancing our understanding of visual perception in real-world contexts.

Ninglong Xu

Institute of Neuroscience, China
"Dendritic and circuit computation for flexible decision-making"

Dr. Xu investigates how neuronal circuits and biophysical mechanisms underpin conscious perception and decision-making in the mammalian brain. His work has demonstrated how top-down feedback influences auditory perception, providing insights into the dynamic interplay between sensory inputs and internal cognitive states.

Seung-Hee Lee

KAIST/IBS, Korea
"Balancing flexibility and stability during auditory reversal learning"

Dr. Lee is a leading neuroscientist whose research advances our understanding of the neural circuit mechanisms underlying sensory processing and perceptual decision-making. She has made pioneering contributions to understanding how specific interneuron subtypes regulate sensory perception and integrate multisensory information in the mammalian brain.