2025 KSBNS
Symposium 48

Title: THE MOLECULAR, CELLULAR, AND CIRCUITRY MECHANISM OF PAIN AND ITCH

August 27th (Wednesday), 12:30-14:25
Ballroom B, Songdo CONVENSIA, Incheon, Korea

한국뇌신경과학회
The Korean Society for Brain and Neural Sciences

Registration KSBNS2025.org

Organizers

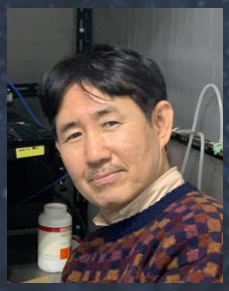
Yong-Jing Gao

Institute of Pain Medicine, Nantong University

Guang-Yin Xu

Institute of Frontiers in Brain X, Soochow University

Speakers



Makoto Tominaga

Thermal Biology Res. Group, Nagoya Advanced Res. and Develop. Center, Nagoya City University, Japan
"Thermosensitive TRP channels in itch and pain"

He has been working on the molecular mechanisms of thermosensation and nociception focusing on thermosensitive TRP channels since he was involved in the initial cloning of capsaicin receptor TRPV1 in 1997. He will talk about the involvement of TRPV1, TRPA1, TRPV3 and TRPV4 in itch and pain.

Yun Wang

Neuroscience Research Institute, School of Basic Medical Sciences, Peking University, China
"Mechanism linking peripheral injury repair and neuropathic pain"

Her work focuses on neural signal transduction mechanisms underlying pain modulation and neural development, contributing to new insights into chronic pain and neuropsychiatric disease therapies.

Guang-Yin Xu

Institute of Frontiers in Brain X, Soochow University, China
"Purinergic Receptors and Chronic Pain"

His research focuses on the epigenetic regulation and neural circuit mechanisms of chronic pain and its negative emotions. His findings have contributed to advancing clinical treatments for chronic pain.

Yong-Jing Gao

Institute of Pain Medicine, Nantong University, China
"Neuroinflammation and Neuropathic pain"

Her research focuses on the neuroinflammatory mechanisms underlying neuropathic pain, particularly how chemokines and other inflammatory mediators regulate central and peripheral sensitization through neuron-glia interactions. Her findings have uncovered promising new therapeutic targets for neuropathic pain treatment.

Yong Ho Kim

Gachon Pain Center and Department of Physiology, Gachon University College of Medicine, Incheon, South Korea
"Neuronal Circuitry and Plasticity of Pain"

He will present a groundbreaking approach to pain relief through GLP-1 and its peptide derivatives, which directly inhibit TRPV1 channels—a central mediator of heat and inflammatory pain—without causing thermoregulatory side effects. This work introduces a novel class of safe, non-opioid analgesics that selectively target peripheral pain pathways while preserving physiological balance, offering a new direction at the intersection of sensory neuroscience and metabolic peptide signaling.