



# Association of Korean Neuroscientists

재미 한국인 신경과학회  
Since 1982

## 6<sup>th</sup> AKN 2025 Research Symposium Program

April 11-13, 2025, University of Miami, Florida, USA



### Symposium Organizing Committee

Mi-Hyeon Jang (Chair), Rutgers Robert Wood Johnson Medical School

Alexa Woo (Co-Chair), Case Western Reserve University

Junhee Kim, University of Michigan

Jae-Kyung Lee, University of Georgia

Min Seon Park, University of Miami

Kevin K. Park, UT Southwestern

Jae K. Lee, President of AKN, University of Miami

# Symposium Venue

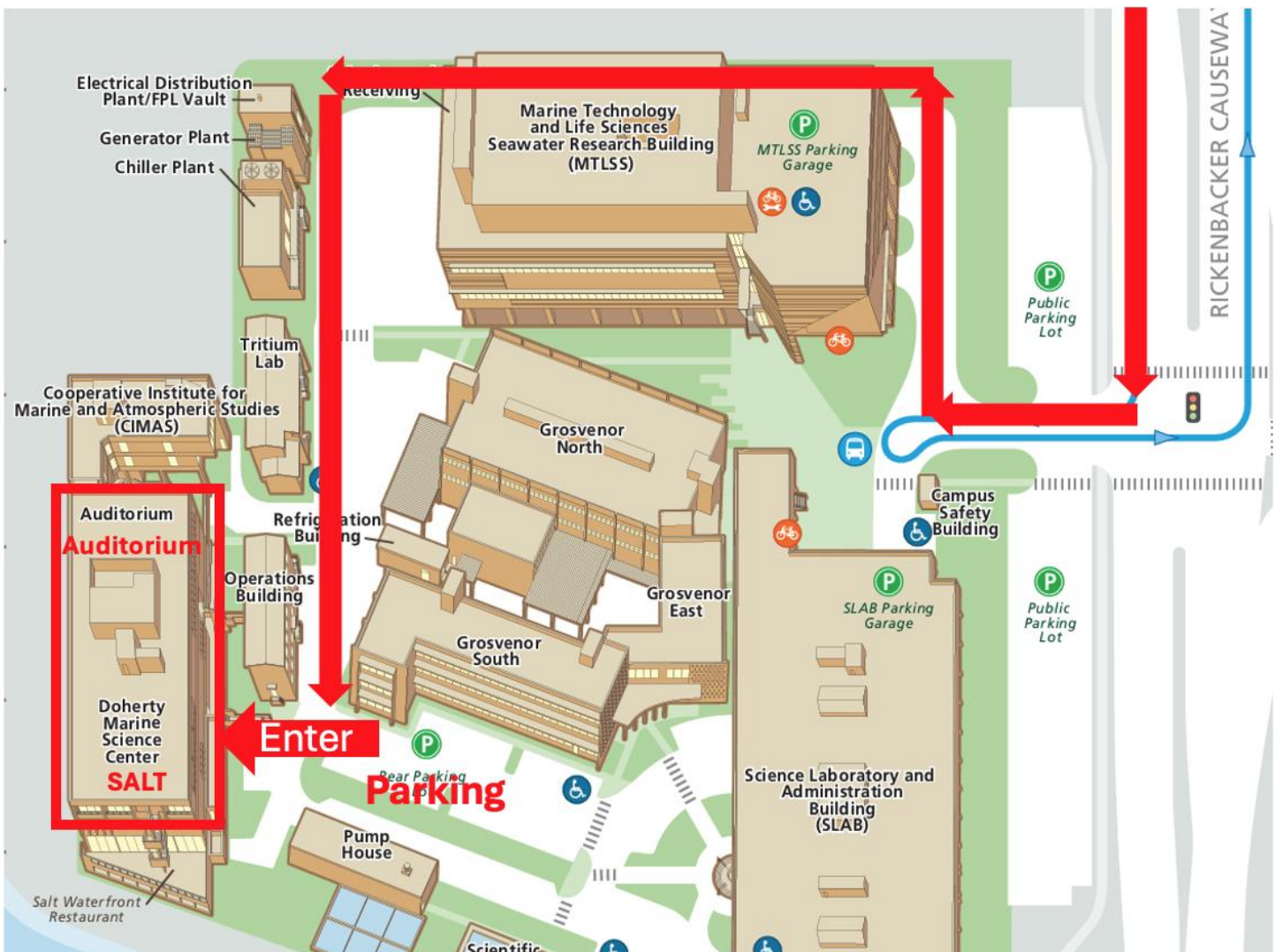
Rosenstiel School of Marine, Atmospheric, and Earth Science (RSMAS),  
University of Miami

Address: 4600, Rickenbacker Cswy, Key Biscayne, FL 33149

The Rosenstiel School of Marine, Atmospheric, and Earth Science (RSMAS) is located in Key Biscayne, just a 12-minute drive (< 6 miles) from downtown Miami.

Please call or text organizers if you have trouble to find the location.

- Dr. Mi-Hyeon Jang (443-414-0077)
- Dr. Alexa Woo (858-717-1456)
- Dr. Minsun Park (786-372-3014)



# 6<sup>th</sup> AKN Annual Research Symposium - Day 1

**Friday, April 11, 2025, Bill Baggs State Park (Shelter D18)**  
(1200 Crandon Blvd, Key Biscayne, FL 33149)

**4:00 – 4:30**      **Registration at [Bill Baggs State Park](#) (Shelter D18)**

**4:30 – 6:30**      **Welcoming event, Networking & Dinner**

- Opening remarks by Jae K. Lee, President of AKN
- Icebreaker Session

**6:30 – 8:00**      **Dinner**



# 6<sup>th</sup> AKN Annual Research Symposium - Day 2

Saturday, April 12, 2025, RSMAS Auditorium

**9:00 – 9:15**      **Registration & Breakfast**

**9:15 – 10:40**      **Short-talks I (Moderator: Jae-Kyung Lee)**

*Molecular mechanisms of neural plasticity and sleep*

Seung-Eon Roh, Johns Hopkins University

*Visual system restoration through axon regeneration and neuroprotection*

Kevin K. Park, UT Southwestern Medical Center

*Towards autologous cell therapy for Parkinson's disease: Preclinical validation of hiPSC-derived dopaminergic cells*

Young Cha, McLean Hospital/Harvard Medical School

*The role of astrocyte-specific transcription factor, Sox9 in the aged brain*

Dongjoo Choi, Baylor College of Medicine

*Big tau: a tau isoform with a distinct expression pattern and pathology-resisting properties*

Dah-eun (Chloe) Chung, Baylor College of Medicine

*Noradrenergic system-related mechanisms in Alzheimer's disease progression*

Seong Su Kang, Emory University

*Trans-synaptic propagation of pathological human Tau in a Drosophila model of Alzheimer's disease*

Daewoo Lee, Ohio University

*Ubiquitin specific peptidase 19 drives TDP-43 aggregation and associated ER stress*

David Kang, Case Western Reserve University

**10:40 – 11:00**      **Coffee Break**

**11:00 – 12:00 Keynote session by the Tong H. Joh Research Innovation Awardee  
(Moderator: Jae K. Lee & Yoon-Seong Kim)**

*Introduction to the Tong H. Joh Research Innovation Award by Yoon-Seong Kim*

*Insights into spatial cognition mined from the connectome*

Sung Soo Kim, PhD, University of California, Santa Barbara

**12:00 – 1:00 AKN-KBRI-Session (Moderator: Jeong Yeon Kim)**

*Direct connectivity between the inferior colliculus and lateral vestibular nucleus in the integration of auditory and vestibular systems*

Youngrae Ji, Korea Brain Research Institute (KBRI)

*fMRI with neural modulation to link circuits and behavior*

Won Beom Jung, Korea Brain Research Institute (KBRI)

*Tonotopic dynamics of the non-lemniscal thalamocortical auditory pathway*

Hyun-Ji Shim, Johns Hopkins University

*The Role of GABA co-release in developing reliable glycinergic connections in the auditory brainstem*

Jongwon Lee, University of Pittsburgh

**1:00 – 2:20 Lunch Break (SALT)**

**2:20 – 3:30 Short-talks II (Moderator: Jun Hee Kim)**

*Striato-pallidal circuits in addictive behaviors*

Doo-Sup Choi, Mayo Clinic

*Neuromodulation of excitatory synapse development in the prefrontal cortex*

Won Chan Oh, University of Colorado School of Medicine

*Striatal pathways oppositely shift cortical activity along the decision axis*

Ryan Cho, Princeton University

*vmPFC-motor cortex interaction mediate cost-benefit tradeoff during decision-making*

Yonil Jung, Max Planck Institute Florida

*Anatomy and function of the dorsal endopiriform nucleus*

Yongsoo Kim, Penn State University

*Bio-inspired nanotechnology for neurological disorders: Integrating drug delivery, gene therapy, and cell-based strategies*

KiBum Lee, Rutgers University

*Linking molecules to computation*

Ingie Hong, Johns Hopkins University

**3:30 – 3:50**      **Coffee Break**

**3:50 – 4:30**      **Short-talks III (Moderator: Kevin K. Park)**

*Endothelial SHANK3 regulates tight junctions in the neonatal mouse blood-brain barrier through  $\beta$ -Catenin signaling*

Il Hwan Kim, University of Tennessee Health Science Center

*AAV-mediated transgene expression in oligodendroglia with enhanced cell-specificity*

Shin Hyeok Kang, Temple University

*Creating a digital twin of the brain*

Jin Hyung Lee, Stanford University

**4:30 – 6:00**      **Career Development Session (Moderator: Yongsoo Kim)**

**Panelists:** Hyun-Kyoung Lee, Kevin K. Park and Seung-Hee Yoo

**6:00 –**              **Dinner, Award Ceremony & Networking**

- Introduction of Sponsors - Moderated by Jae K. Lee
- Brain Artwork Presentation - Moderated by Mi-Hyeon Jang
- Award Ceremony (AKN Outstanding Timely Presentation & Brain Artwork Awards) - Moderated by Alexa Woo

# 6<sup>th</sup> AKN Annual Research Symposium - Day 3

Sunday, April 13, 2025, RSMAS Auditorium

**9:00 – 9:20**      **Breakfast & Coffee**

a small group will stay in SALT to meet separately

**9:20 – 11:00**      **Funding Strategies Beyond R01/R21 Grants Session**  
**(Moderator: Yoon-Seong Kim & Mi-Hyeon Jang)**

- 9:20 – 9:35: P-type grant (Doo-Sup Choi & David Kang)
- 9:35 – 9:50: U-type grant (Sangmi Chung & Sung Soo Kim)
- 9:50 – 10:05: DOD, CDMRP (Yoon-Seong Kim)
- 10:05 – 10:20: Private Foundation (Jae-Kyung Lee & Alexa Woo)
- 10:20 – 10:35: RM1 grant (Jae K. Lee and Yongsoo Kim)
- 10:35 – 10:50: Boston Korea, and other international awards

**11:00 – 1:00**      **Working Lunch & Closing Ceremony**

Lunch served at 11:30

**Acknowledgment of Our Generous Sponsors**

