41ST AKN MEETING REPORT 2023

WASHINGTON, DC

NOVEMBER 13, 2023

WASHINGTON PLAZA HOTEL

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MEETING PROGRAM

6:30 –7:00 **Welcome and Introduction**
MC: Dr. Jin Hyung Lee and
Dr. In-Hyun Park

7:00 –7:10 *Opening Remark*

Dr. Yoon-Seong Kim (AKN President)
Dr. Cheil Moon (KSBNS President)

7:10 –7:30 **Institute/Organization Announcements**

Dr. Pann-Ghill Suh (KBRI)
Dr. Sunghee Cho (ISCBFM)
Dr. Hyung Jin Choi (K-MEDI)

7:30 –7:45 **AKN Special Lecture**

What do experimental models tell us about Parkinson's disease?

Dr. Un Jung Kang, NYU Langone Health

7:45 - 8:05 **Junior Faculty Awards & Presentations**

Dr. Sora Shin (Virginia Tech)
Dr. Tae-In Kam (Johns Hopkins)

8:05 – 8:20 **Junior Research Scientist, Pre- and Post -Doctoral Awards**

8:20 – 9:00 **Networking**

9:00 – 9:30 **Closing Remark, Q&A, Games, Raffle, and Photo**

MEETING SUMMARY

The 41st AKN annual meeting was held at the Washington Plaza Hotel in Washington, DC. The event started at 6:30pm and was over at approximately 9:30pm.

Approximately 250 members from both Korea and US attended the meeting, which is one of the highest number of attendees ever in Washington, DC. Dr. In-Hyun Park and Dr. Jin-Hyung Lee were the MC's, and they conducted XO games and other quizzes with Amazon gift cards as prizes. This year, we had designated time for networking where attendees were able to connect with their colleagues and friends.

There was a pre-meeting dinner on November 12th at the Washington Plaza Hotel with faculty and officials from the sponsoring institutions. The dinner started at 7 and ended around 9:30. There were approximately 35 people in attendance.

AKN SPECIAL LECTURE

"What do experimental models tell us about Parkinson's disease?"

Un Jung Kang, MD

New York University School of Medicine

The Founders Professor of Neurology, Department of Neurology

Professor, Department of Neuroscience and Physiology

Member, Neuroscience Institute

Director of Translational Research, Marlene and Paolo Fresco Institute for Parkinson's and Movement Disorders

Co-Director, Parekh Center for Interdisciplinary Neurology

Junior Faculty Award

Sora Shin , PhD

Assistant Professor
Virginia Tech

The Shin Lab aims to understand the role of brain circuit-specific mechanisms using translationally relevant animal models of stress-induced psychiatric diseases. The lab seeks to answer such questions as: How does the harsh early environment affect mental health in adulthood? How are unfulfilled needs in early life stored and transduced into behavioral dysfunctions after a long time? What processes are set into motion that link stress experiences to symptoms of eating disorders or major depression in later life? Nerve cells in the brain communicate through specialized junctions called synapses. Synaptic connections need to be properly formed, specified and maintained during development and throughout life.

The Shin lab uses a combination of optogenetics, in vivo imaging and viral tracing techniques that has revolutionized modern neuroscience and will provide new opportunities for exploring the novel function of brain circuits. The laboratory pairs these techniques with classical approaches such as surgical and pharmacologic manipulations with the goal of providing a therapeutic approach for treating psychiatric symptoms caused by stress experiences.

JUNIOR FACULTY AWARD

Tae-In Kam, PhD

Assistant Professor
Johns Hopkins University

The Kam lab is focusing on neuronal and non-neuronal mechanisms of pathogenesis of neurodegenerative diseases including Alzheimer's and Parkinson's disease. The lab is trying to understand the molecular mechanisms of neuronal cell death as well as to identify the role of microglia-astrocyte axis in neurodegeneration. The lab is looking to identify novel targets that are essential for pathogenesis of neurodegenerative diseases and develop disease-modifying drugs targeting key molecules.

SELECTED PUBLICATIONS

Kam TI*, Mao X*, Park H*, Chou SC, Karuppagounder SS, Umanah GE, Yun SP, Brahmarchari S, Panicker N, Chen R, Andrabi SA, Qi C, Poirier GG, Pletnikova O, Troncoso JC, Bekris LM, Leverenz JB, Pantelyat A, Ko HS, Rosenthal LS, Dawson TM, Dawson VL. Poly (ADP-ribose) drives pathologic a-synuclein neurodegeneration in Parkinson's disease. Science 362(6414). pii: eaat8407 (2018) (*equal contribution)
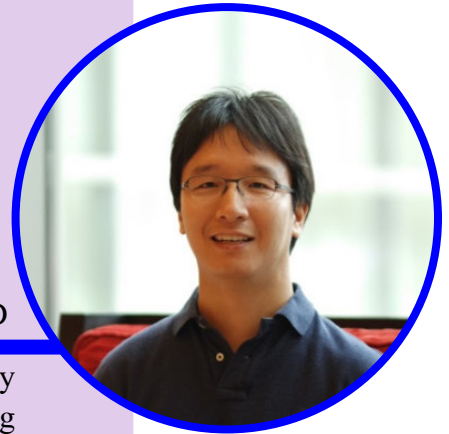
Yun SP*, Kam TI*, Panicker N, Kim S, Oh Y, Park JS, Kwon SH, Park YJ, Karuppagounder SS, Park H, Kim S, Oh N, Kim NA, Lee S, Brahmachari S, Mao X, Lee JH, Kumar M, An D, Kang SU, Lee Y, Lee KC, Na DH, Kim D, Lee SH, Roschke V, Liddelow SA, Mari Z, Barres BA, Dawson VL, Lee S, Dawson TM, Ko HS. Block of A1 astrocyte conversion by microglia is neuroprotective in models of Parkinson's disease. Nature Medicine 24(7), 931-938 (2018) (*equal contribution)

JUNIOR RESEARCH SCIENTIST AWARDS

Seung-Eon Roh, PhD

Johns Hopkins University
Alzheimer's disease

Ingie Hong, PhD

Johns Hopkins University
Synaptic dynamics during learning

Hyeonwi Son, Ph.D.

Univ Texas Health at
San Antonio
Pain

POST-DOCTORAL AWARDS

Minhyeok Chang, PhD

Johns Hopkins University
Synaptic trasmission

Sukjae Joshua Kang, PhD

Salk Institute
Neural circuit of fear

Young Hee Lee, PhD

Seoul National University
Alzheimer's disease

PRE-DOCTORAL AWARDS

Jae Hyung Woo

Dartmouth College
Network of decision making

Ye Ji Kim

MIT
Biomaterial for neuromodulation

Seong Jun Kim

CHA University
Spinal cord injury

Ye Eun Kim

POSTECH
Signaling in neurodevelopment

Seungjae Han

KAIST
Signal acquisition and analysis

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