



SCIENTIFIC PROGRAM

August 23 - 26, 2026

(Final Program)

Sessions/Events Overview

Plenary Lectures & Guest Lectures

GL1	Sun 23 14:30	Large Scale Cortical Population Codes — <i>Kenneth Harris</i>
PL1	Sun 23 17:00	From Pecking Order to Ketamine – Neural Mechanisms of Social and Emotional Behaviors — <i>Hailan Hu</i>
PL2	Mon 24 09:00	The New Biology of Alpha-Synuclein: From Synaptic Protein to Diverse Pathological States — <i>Glenda Halliday</i>
PL3	Mon 24 16:50	Dysregulated Synaptic Plasticity: From Alzheimer's Disease to Autism — <i>Graham Collingridge</i>
PL4	Tue 25 09:00	From Genetic Tools to Motor Recovery, Blindsight, Decision and Neuropsychiatric Disorder in Nonhuman Primates — <i>Tadashi Isa</i>
GL2	Tue 25 16:50	Time and Punishment: Dynamic Encoding of Emotional Memory — <i>Guest speaker</i>
PL5	Wed 26 14:00	Deciphering the Biochemistry of Long-term Memory — <i>Haruhiko Bito</i>

Symposia

S01	Mon 24 10:30	Neurochemical mechanisms underpinning complex behaviors
S02	Mon 24 10:30	Precision neuromodulation across scales: from circuit mechanisms to therapeutic translation in brain disorders
S03	Mon 24 14:30	Network rebalancing and therapeutic targets in severe neuropathological disorders
S04	Mon 24 14:30	Organoid, transgenic, and environmental models of neurochemistry to understand developmental brain disorders
S05	Mon 24 14:30	Advancing stem cell technologies for neurological disorders
S06	Mon 24 14:30	Dynamic control of AMPA receptor trafficking across scales in synaptic plasticity
S07	Tue 25 10:30	Neuroimmune interactions - new tools and discoveries
S08	Tue 25 10:30	Neuronal and neurochemical remodelling in pathological states
S09	Tue 25 14:30	The geometry of neural dynamics: data driven models, network mechanism and brain-inspired AI
S10	Tue 25 14:30	Molecular mechanisms of neurodegenerative diseases: from protein aggregation to altered chromatin architecture
S11	Tue 25 14:30	From tag to trace: how synapse store lasting memories
S12	Tue 25 14:30	Behavioral and cognitive flexibility in health and disease: Neural circuit mechanisms and beyond
S13	Wed 26 09:00	Uncovering novel molecular mechanisms in brain diseases
S14	Wed 26 11:30	Synaptic strengthening in memory consolidation
S15	Wed 26 11:30	Metabolic and signaling dysregulation in pathogenesis: molecular mechanisms and pharmacological interventions
S16	Wed 26 15:00	Revisiting classical monoamine neurochemistry with next-generation monitoring technologies
S17	Wed 26 15:00	Bridging genetic diversity to clinical innovation in Parkinson's disease: Asia-Pacific perspectives
S18	Wed 26 15:00	Physical exercise and brain health: mechanisms, interventions, and translational perspectives
S19	Wed 26 15:00	Large-scale network organization underlying brain function - from effective connectivity to dynamics modeling

Special Sessions

SS1	Sun 23 14:30	ALBA-IBRO Session on Scientific Mobility and Identity in Neuroscience Careers
SS2	Sun 23 14:30	Advanced Neuroimaging for Circuit & Brain-wide Analysis
SS3	Mon 24 10:30	Bridging Basic & Clinical Neuroscience Session 1
SS4	Mon 24 10:30	Forum on Neuroethics

OT1	Mon 24 13:30	Open Theatre on Neurotechnology
SS5	Tue 25 10:30	Women in Neuroscience Forum
OT2	Tue 25 13:30	Open Theatre on Neurotechnology
SS6	Wed 26 09:00	Bridging Basic & Clinical Neuroscience Session 2
SS7	Wed 26 11:30	Publishing Forum

Young Investigators, Oral Sessions & Flash Talks

FLASH	Sun 23 15:30	Flash Talks: Selected Posters
OS1	Mon 24 10:30	Oral presentation session 1
OS2	Mon 24 14:30	Oral presentation session 2
YIC1	Tue 25 10:30	ISN-APSN Young Investigators Colloquium Session 1
YIC2	Tue 25 10:30	ISN-APSN Young Investigators Colloquium Session 2
OS3	Tue 25 14:30	Oral presentation session 3
YIC3	Wed 26 09:00	ISN-APSN Young Investigators Colloquium Session 3
YIC4	Wed 26 09:00	ISN-APSN Young Investigators Colloquium Session 4
OS4	Wed 26 11:30	Oral presentation session 4

Council/Business Meetings & AGM

Meeting	Sun 23 11:00	APSN Council Meeting
Meeting	Mon 24 14:30	IBRO-APRC Meeting
AGM	Tue 25 13:45	APSN AGM
Meeting	Tue 25 14:30	FAONS Council Meeting

Poster Sessions

Posters	Mon 24 12:30	Lunch, Exhibitions and Posters (P001–P054 + EP1–EP3, 57 posters)
Posters	Tue 25 12:30	Lunch, Exhibitions and Posters (P001–P058 + EP1–EP3, 61 posters)
Posters	Wed 26 12:30	Lunch, Exhibitions and Posters (P001–P052, 52 posters)

Aug 23 (Sun)

13:45 - Onward Registration

11:00 - 14:00 APSN Council Meeting

Venue:
FAW Meeting Room 7

14:30 - 16:00

Venue: LT 1

SS1 ALBA-IBRO Session on Scientific Mobility and Identity in Neuroscience Careers

Parallel Session

- 14:30 - 14:35 **Welcome & Framing**
Dorothy Tse
- 14:35 - 15:15 **Personal Trajectories in Motion**
Jee Hyun Kim, Mohamed Shaker, Jacque Ip
- 15:15 - 15:25 **Institutional Systems and Structures of Mobility**
Tasia Asakawa
- 15:25 - 15:55 **Roundtable Discussions**
- 15:55 - 16:00 **Closing Remark**
Sung-jin Jeong

14:30 - 16:30

Venue: LT 3-4

SS2 Advanced Neuroimaging for Circuit & Brain-wide Analysis

Parallel Session

- 14:30 - 14:35 *Introduction*
- 14:35 - 15:10 **Imaging neuronal activity in the cerebellar cortex of behaving mice**
Bernd Kuhn | Speaker 1
- 15:10 - 15:45 **Routine 3D multi-omics for system-wide circuit- and molecular-level imaging**
Hei Ming Lai | Speaker 2
- 15:45 - 16:20 **Imaging RhoGEF-RhoGTPase signaling by 2-photon fluorescence lifetime imaging microscopy**
Hideji Murakoshi | Speaker 3
- 16:20 - 16:30 *Q&A and General Discussion*

Wing Ho Yung | Chair

14:30 - 15:20

Venue: LT 2

GL1 GUEST LECTURE 1

Parallel Session

- 14:30 - 15:20 **Large Scale Cortical Population Codes**
Kenneth Harris | Guest Speaker

Michael Hausser | Chair

15:30 - 16:30

Venue: LT 2

FLASH Flash Talks: Selected Posters

Parallel Session

Selected posters — see Poster Lists for details | Note

Kwok On Lai | Chair

16:45 - 17:00

Venue:
Faculty Board Room

Opening Ceremony

17:00 - 18:00

Venue:
Faculty Board Room

PL1 PLENARY LECTURE

- 17:00 - 18:00 **From Pecking Order to Ketamine – Neural Mechanisms of Social and Emotional Behaviors**
Hailan Hu | Plenary Speaker

Ying-Shing Chan | Chair

18:00 - 19:00

Venue:
Exhibition Area

Reception

Aug 24 (Mon)

08:30-Onward	Registration
09:00 - 10:00	PL2 ISN PLENARY LECTURE
Venue: LT 3-4	09:00 - 10:00 The New Biology of Alpha-Synuclein: From Synaptic Protein to Diverse Pathological States Glenda Halliday Plenary Speaker Jee Hyun Kim Chair
10:00 - 10:30	Coffee Break & Networking
10:30 - 12:30	S01 Neurochemical mechanisms underpinning complex behaviors Parallel Session
Venue: LT 3-4	10:30 - 11:00 Dynamics of serotonergic signalling in the cortex during learning Lucy Palmer Speaker 1 11:00 - 11:30 Spatial proteomics uncovers presynaptic diversity across medial prefrontal circuits including a socioemotional pathway Yuki Ito Speaker 2 11:30 - 12:00 The role of dopamine in safety learning Joanna Yau Speaker 3 12:00 - 12:30 The Neurobiology of Empathy: Rodent Models and Psychiatric Implications Sehoon Keum Speaker 4 Andrew Lawrence Chair
10:30 - 12:30	S02 Precision neuromodulation across scales: from circuit mechanisms to therapeutic translation in brain disorders Parallel Session
Venue: LT 2	10:30 - 11:00 High Frequency Stimulation of the Medial Prefrontal Cortex: From Antidepressant to Memory Enhancement Lei Wei Lim Speaker 1 11:00 - 11:30 Ultrasound-mediated Neuromodulation Hyunjoo Jenny Lee Speaker 2 11:30 - 12:00 Ultrasound Neuromodulation and Sonogenetics Lei Sun Speaker 3 12:00 - 12:30 Cerebellar rTMS Targeting the Cerebello-Nigral Circuit Improves Motor Deficits in Parkinson's Disease Jing-Ning Zhu Speaker 4 Jing-Ning Zhu Chair
10:30 - 12:30	SS3 Bridging Basic & Clinical Neuroscience Session 1 Parallel Session
Venue: LT 1	10:30 - 11:00 Translational Research for neurological diseases: BBB - Bedside to Bench and Back or Bench to Bedside and Back? Sophelia Chan Speaker 1 11:00 - 11:30 Spatially restricted BDNF-TrkB signaling drives postsynaptic differentiation at neuromuscular synapses Chi Wai Lee Speaker 2 11:30 - 12:00 Anti-amyloid therapy for Alzheimer Disease Koon Ho Chan Speaker 3 12:00 - 12:30 Mechanisms and Therapeutic Targeting of Secondary Neurodegeneration in Post-Stroke Cognitive Impairment Lin Ong Speaker 4 Koon Ho Chan Chair
10:30 - 12:30	SS4 Forum on Neuroethics Parallel Session
Venue: Seminar Room 1, 3rd Floor	Kun Ho Lee, Kensaku Kasuga Speakers

Glenda Halliday, Jialin Zheng, Hitoshi Shimada, Gilberto Leung, Fumie Arie | Discussants
Tamami Fukushi, Sung-Jin Jeong | Moderators

10:30 - 12:30

OS1 Oral presentation session 1 **Parallel Session**

Venue:

Seminar Room 3, 3rd Floor

- | | |
|---------------|---|
| 10:30 - 10:54 | Single-nucleus multi-omics profiling uncovers pathological features driving hippocampal vulnerability in Alzheimer's disease
<i>Lei Han</i> Speaker 1 |
| 10:54 - 11:18 | Evaluating APP-targeting antisense oligonucleotides in human stem cell models of Alzheimer's disease
<i>Christy Hung</i> Speaker 2 |
| 11:18 - 11:42 | Anterior Claustrum Dopamine D1 Receptor Confers Resilience to Helpless Behavior via Stress Relief
<i>Yong-Seok Oh</i> Speaker 3 |
| 11:42 - 12:06 | Genetic evidence links synaptic dysfunction and neural circuit dysregulation to adolescent idiopathic scoliosis
<i>Bo Gao</i> Speaker 4 |
| 12:06 - 12:30 | Selective neuronal vulnerability caused by disrupted endolysosomal dynamics and impaired mitochondria clearance
<i>Shen Gu</i> Speaker 5 |

Ken KL Yung | Chair

12:30 - 14:30

Lunch, Exhibitions and Posters (See Poster Lists)

13:30 - 14:15

OT1 Open Theatre on Neurotechnology

Venue: LT 1

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|---------------|---|
| 13:30 - 14:15 | Quantitative Imaging of Neuromodulator Dynamics in vivo by Constructing New GRAB sensors
<i>Yulong Li</i> Guest Speaker |
|---------------|---|

14:30 - 16:30

S03 Network rebalancing and therapeutic targets in severe neuropathological disorders

Parallel Session

Venue:

Seminar Room 1, 3rd Floor

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|---------------|--|
| 14:30 - 15:00 | Long-range modulation of brain activity alleviates seizures in temporal lobe epilepsy
<i>Geoffrey Lau</i> Speaker 1 |
| 15:00 - 15:30 | Repairing the Young Injured Brain: Understanding Risk and Advancing Rehabilitation Strategies in Paediatric Brain Tumor Survivorship
<i>Winnie Tso</i> Speaker 2 |
| 15:30 - 16:00 | Ultrasound-Driven Network Rebalancing: From Astrocytic Mechanotransduction to Long-Term Plasticity
<i>Joo Min Park</i> Speaker 3 |
| 16:00 - 16:30 | RNA Modifications in Ischemic Injury, and Neuropsychiatric Risk
<i>Dan Ohtan Wang</i> Speaker 4 |

Dan Ohtan Wang | Chair

14:30 - 16:30

S04 Organoid, transgenic, and environmental models of neurochemistry to understand developmental brain disorders **Parallel Session**

Venue:

Seminar Room 3, 3rd Floor

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|---------------|--|
| 14:30 - 15:00 | Functional and Molecular Dissection of CDKL5 Deficiency Disorder
<i>Jacque Ip</i> Speaker 1 |
| 15:00 - 15:30 | Modeling Cohen Syndrome with Scalable Human Anterior Neural Organoids
<i>Woong Sun</i> Speaker 2 |
| 15:30 - 16:00 | Local mRNA translation in axons sustains neurotransmission
<i>Hovy Wong</i> Speaker 3 |
| 16:00 - 16:30 | Sex differences in susceptibility to early life adversity: neurochemical answers
<i>Jee Hyun Kim</i> Speaker 4 |

Jee Hyun Kim | Chair

14:30 - 16:30

S05 Advancing stem cell technologies for neurological disorders **Parallel Session**

Venue: LT 3-4

14:30 - 15:00	Benchmarking human midbrain culture for cell therapy for Parkinson's disease <i>Alfred Xuyang Sun</i> Speaker 1
15:00 - 15:30	Profound cellular defects contribute to muscular pathogenesis in the rhesus monkey model of Duchenne muscular dystrophy <i>Ping Hu</i> Speaker 2
15:30 - 16:00	Modeling repeat expansion diseases with stem cells: from mechanism to therapy <i>Zhefan Stephen Chen</i> Speaker 3
16:00 - 16:30	Harnessing Positive Charges: Chitosan-Enhanced Laminin for Neuronal Cell Culture <i>Anna Maria Blocki</i> Speaker 4

Ralf Jauch | Chair

14:30 - 16:30

Venue: LT 1

S06 Dynamic control of AMPA receptor trafficking across scales in synaptic plasticity

Parallel Session

14:30 - 15:00	A self-organizing AMPA receptor landscape underlies nanoscale synaptic plasticity <i>Deepak Nair</i> Speaker 1
15:00 - 15:30	Plasma membrane PI4P facilitates activity-induced exocytosis of AMPA receptor <i>Jiajia Liu</i> Speaker 2
15:30 - 16:00	Copine-6 binding to phosphatidylinositol 3-phosphate and Rab11 promotes endosomal sorting of AMPA receptors during synaptic activity <i>Victor Anggono</i> Speaker 3
16:00 - 16:30	Dynamic changes of AMPA receptors in memory-related neuronal ensemble during sensory learning <i>Yong Zhang</i> Speaker 4

Victor Anggono | Chair

14:30 - 16:30

Venue: LT 2

OS2 Oral presentation session 2 Parallel Session

14:30 - 14:50	Ficus deltoidea improves spatial memory and reduces amyloid-β and phosphorylated tau in an Alzheimer's disease-like rat model <i>Muhammad Zulfadli Mehat</i> Speaker 1
14:50 - 15:10	Human iPSC-Derived D1R- and D2R-Specific Medium Spiny Neurons for Modeling Corticostriatal Circuit Function and Neuropsychiatric Disorders <i>Sopak Supakul</i> Speaker 2
15:10 - 15:30	Altitude-Dependent Neurocognitive Impairment in the Nepal Himalayas: Frontal Lobe Susceptibility Across Progressive Hypoxic Exposure <i>Sunil Dhungel</i> Speaker 3
15:30 - 15:50	Direct in vivo AAV-mediated CRISPR screening reveals shared and selective neuronal vulnerabilities <i>Yingjun Liu</i> Speaker 4
15:50 - 16:10	Hypothalamic Glucagon-Like Peptide-1 Receptors are Involved in Exendin-4-Induced Emesis in <i>Suncus murinus</i> <i>Sze Wa Chan</i> Speaker 5
16:10 - 16:30	Musical training for survivors of pediatric brain tumors: A feasibility pilot study <i>Theodore Cheung</i> Speaker 6

Daisy Shum | Chair

14:30 - 16:30

IBRO-APRC Meeting

Venue:
FAW Meeting Room 7

16:30 - 16:50

Coffee break

16:50 - 17:50

PL3 PLENARY LECTURE

Venue: LT 3-4

16:50 - 17:50	Dysregulated Synaptic Plasticity: From Alzheimer's Disease to Autism <i>Graham Collingridge</i> Plenary Speaker
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Michael Hausser | Chair

18:00-Onward

Social & Networking Activities

Aug 25 (Tue)

08:30-Onward	Registration	
09:00 - 10:00	PL4	PLENARY LECTURE
Venue: LT 3-4	09:00 - 10:00	From Genetic Tools to Motor Recovery, Blindsight, Decision and Neuropsychiatric Disorder in Nonhuman Primates <i>Tadashi Isa</i> Plenary Speaker
	<i>Wing Ho Yung</i> Chair	
10:00 - 10:30	Coffee Break & Networking	
10:30 - 12:30	S07	Neuroimmune interactions - new tools and discoveries Parallel Session
Venue: LT 3-4	10:30 - 11:00	Spying on Neuromodulator Dynamics in Neuroimmune Crosstalk by Constructing Multi-Color GRAB Sensors <i>Yulong Li</i> Speaker 1
	11:00 - 11:30	Decoding Injury Signals: Imaging Spatiotemporally-Selective ATP Dynamics in Neuron-Glial crosstalk <i>Miao Jing</i> Speaker 2
	11:30 - 12:00	Anti-NMDAR Autoantibodies: Circuit Mechanisms of Pathology and Therapeutic Applications <i>Ji Hu</i> Speaker 3
	12:00 - 12:30	A Meningeal Neural Circuit Enforces Brain Immune Privilege and Limits B-ALL CNS Metastasis <i>Danyang He</i> Speaker 4
	<i>Yulong Li</i> Chair	
10:30 - 12:30	S08	Neuronal and neurochemical remodelling in pathological states Parallel Session
Venue: LT 2	10:30 - 11:00	Non-neuronal cells in joint pain: provocation and prevention <i>Ewan St. John Smith</i> Speaker 1
	11:00 - 11:30	Plasma cytokines induced astrocytic P21-activated kinases (PAK1) activation alters blood-spinal cord barrier in promoting neuropathic pain <i>Jessica Liu</i> Speaker 2
	11:30 - 12:00	5-HT3 Receptor-Dependent Nigro-Hippocampal Circuit Remodeling Mediates Exercise-Enhanced Cognition in Parkinson's Disease <i>Ying Huang</i> Speaker 3
	12:00 - 12:30	Decoding the Pathophysiology of Trigeminal Neuralgia and Its Emotional Comorbidities <i>Cheng Cen</i> Speaker 4
	<i>Ying Huang</i> Chair	
10:30 - 12:30	YIC1	ISN-APSN Young Investigators Colloquium Session 1 Parallel Session
Venue: Seminar Room 3, 3rd Floor	10:30 - 10:54	Tau controls the homeostasis of synaptic NMDA receptors <i>Xuan Ling Hilary Yong</i> Speaker 1
	10:54 - 11:18	tRNA-derived fragments function as tau binders, promoting Tau aggregation <i>Ami Kobayashi</i> Speaker 2
	11:18 - 11:42	Lysosomal resilience as a central regulator of pathogenic protein propagation in neurodegenerative diseases <i>Keita Kakuda</i> Speaker 3
	11:42 - 12:06	Unique inflammasome activation patterns in mice models of β-amyloid accumulation and tauopathy <i>Yuek Ling Chai</i> Speaker 4
	12:06 - 12:30	Bisphenol Analogues and the Microbiota-Gut-Brain Axis: Rethinking Safer Alternatives <i>Dhirendra Pratap Singh</i> Speaker 5
	<i>Yuuki Fujiwara</i> Chair	
10:30 - 12:30	YIC2	ISN-APSN Young Investigators Colloquium Session 2 Parallel Session

Venue: Seminar Room 1, 3rd Floor	10:30 - 10:54	Appetite Gating Through Region-Specific Neural Activity Balance in the Extended Amygdala <i>Yun Zhu</i> Speaker 1
	10:54 - 11:18	Towards transregional neural prostheses: Re-establishing neural functional connectivity with generative spike prediction models <i>Shenghui Wu</i> Speaker 2
	11:18 - 11:42	Repurposing a hypertension medication to treat unipolar and bipolar depression: The Candesartan Adjunctive Depression trials <i>Chun Hui (Johnny) Park</i> Speaker 3
	11:42 - 12:06	Herbal Modulation of Actin Remodeling Rescues Synaptic Plasticity and Memory in REM Sleep-Deprived Mice <i>Peeraporn Varintra</i> Speaker 4
	12:06 - 12:30	Patient Derived Brain Organoids Link Preserved Genomic Background to Network Dysfunction in ASD <i>Mohammed R Shaker</i> Speaker 5
Christina Perry Chair		
10:30 - 12:30		
SS5 Women in Neuroscience Forum Parallel Session		
Venue: LT 1		
Dorothy Tse, Xiaohong Xu, Ha Thi Thanh Huong Panelists		
Ying-Shing Chan Chair		
Cora Lai Chair		
12:30 - 14:30		
Lunch, Exhibitions and Posters (See Poster Lists)		
13:30 - 14:15		
OT2 Open Theatre on Neurotechnology		
Venue: LT 1		
Focusing on high-density SiNAPS probe, 3D atlas multiphoton microscopy, and advanced virtual-reality platform		
13:45 - 14:30		
APSN AGM		
Venue: Seminar Room 2, 3rd Floor		
14:30 - 16:30		
S09 The geometry of neural dynamics: data driven models, network mechanism and brain-inspired AI Parallel Session		
Venue: LT 3-4		
14:30 - 15:00		
Manifolds for explainable Data Driven Science		
Gerald Pao Speaker 1		
15:00 - 15:30		
Inferring Latent Behavioral Strategy from the Representational Geometry of Prefrontal Cortex Activity		
Camilo Libedinsky Speaker 2		
15:30 - 16:00		
Dynamic integration of dissociable value codes for reward and information in the human prefrontal cortex		
Haiyan Wu Speaker 3		
16:00 - 16:30		
From Neural Plasticity to Intelligent Systems: Brain-Inspired Pathways Toward Efficient AI		
Yujie Wu Speaker 4		
Hu Yu Chair		
14:30 - 16:30		
S10 Molecular mechanisms of neurodegenerative diseases: from protein aggregation to altered chromatin architecture Parallel Session		
Venue: LT 2		
14:30 - 15:00		
Reverse Translational Insights into the Mechanisms of Synucleinopathies		
Kensuke Ikenaka Speaker 1		
15:00 - 15:30		
Neurovascular Modulation of Tau Pathology under Chronic Cerebral Hypoperfusion		
Maiko Uemura Speaker 2		
15:30 - 16:00		
ALS-related FUS mutation causes synaptic changes on human stem cell derived cortical neurons in both in vitro astrocyte-neuron co-culture and after in vivo xenotransplantation		
Kwok On Lai Speaker 3		
16:00 - 16:30		
Illuminating the “dark genome” - frontiers beyond the exome to genetically solve undiagnosed neurological disease		
Marina Kennerson Speaker 4		

Kensuke Ikenaka | Chair

14:30 - 16:30

S11 From tag to trace: how synapse store lasting memories **Parallel Session**

Venue:

Seminar Room 1, 3rd Floor

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|---------------|---|
| 14:30 - 15:00 | Circuit mechanism of social memory consolidation in mice
<i>Yong-Seok Lee</i> Speaker 1 |
| 15:00 - 15:30 | Alpha-Ketoglutarate Rescues Synaptic Plasticity and Associativity in an Animal Model of Alzheimer's Disease
<i>Sheeja Navakkode</i> Speaker 2 |
| 15:30 - 16:00 | From prior knowledge to novelty: How experience shapes memory formation
<i>Dorothy Tse</i> Speaker 3 |
| 16:00 - 16:30 | Hippocampal CA2-CA1 Interactions in Metaplastic Control of Memory Formation
<i>Sajikumar Sreedharan</i> Speaker 4 |

Sajikumar Sreedharan | Chair

14:30 - 16:30

S12 Behavioral and cognitive flexibility in health and disease: Neural circuit mechanisms and beyond **Parallel Session**

Venue: LT 1

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|---------------|---|
| 14:30 - 15:00 | Parallel Circuits in the Posterior Parietal Cortex Resolve the Stability-flexibility Dilemma for Rapid Behavioral Adaptation
<i>Seung-Hee Lee</i> Speaker 1 |
| 15:00 - 15:30 | Social Reward Monitoring and Valuation in the Macaque Cortico-subcortical Networks
<i>Masaki Isoda</i> Speaker 2 |
| 15:30 - 16:00 | Revisiting the Cerebellum in Behavioral Inflexibility in Autism: Insights from Circuit and Neuroimmune Mechanisms
<i>Xiaoyang Zhang</i> Speaker 3 |
| 16:00 - 16:30 | Learning in intelligent systems
<i>Hiroshi Makino</i> Speaker 4 |

Ya Ke | Chair

14:30 - 16:30

OS3 Oral presentation session 3 **Parallel Session**

Venue:

Seminar Room 3, 3rd Floor

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|---------------|---|
| 14:30 - 14:50 | Master clock-thalamic-prefrontal circuit controls circadian social priority
<i>Han Kyoung Choe</i> Speaker 1 |
| 14:50 - 15:10 | Rethinking Cochlear Implants: The Need for Precise Temporal Coding in Prosthetic Hearing
<i>Jan Schnupp</i> Speaker 2 |
| 15:10 - 15:30 | Preliminary Analysis of Hindlimb Coordination using Footprint Based DeepLabCut and Transformer model In SCI Rodent
<i>Shengqi Zhang</i> Speaker 3 |
| 15:30 - 15:50 | Deep Learning-Based Detection of Somatic LINE1 Insertions Reveals Disease-Specific Disruptions in Neurodevelopmental Disorders
<i>Xiaowei Zhu</i> Speaker 4 |
| 15:50 - 16:10 | Integrating Environmental Enrichment and Vitamin K2: A Preventive Strategy for Stress-Induced Depression
<i>Nik Nasihah Nik Ramli</i> Speaker 5 |
| 16:10 - 16:30 | Eavesdropping on Worm Conversations: Investigating the Transfer of Memory from One Worm to Another
<i>Kavita Babu</i> Speaker 6 |

King Ho Cheung | Chair

14:30 - 16:30

FAONS Council Meeting

Venue:

FAW Meeting Room 7

16:30 - 16:50

Coffee break

16:50 - 17:50

GL2 GUEST LECTURE 2

Venue: LT 3-4

- | | |
|---------------|---|
| 16:50 - 17:50 | Time and Punishment: Dynamic Encoding of Emotional Memory
Guest Speaker |
|---------------|---|

Ya Ke | Chair

18:00-Onward Conference Gala Dinner (by invitation)

Aug 26 (Wed)

08:30-OnwardRegistration

09:00 - 11:00S13Uncovering novel molecular mechanisms in brain diseasesParallel Session

Venue: LT 1

- 09:00 - 09:30Decoding Novel Regulatory Mechanisms in the Brain: A Spatial Map of RNA Modifications Revealed by DREAMS
Magdalena Koziol | Speaker 1
- 09:30 - 10:00Potential direct role of synuclein in dopamine transport - implications for Parkinson's disease pathogeneses
Meewhi Kim | Speaker 2
- 10:00 - 10:30Targeting neuronal calcium signaling to treat Alzheimer's disease
Ilya Bezprozvanny | Speaker 3
- 10:30 - 11:00Cortical mechanisms for chronic pain and anxiety
Min Zhuo | Speaker 4

Min Zhuo | Chair

09:00 - 11:00SS6Bridging Basic & Clinical Neuroscience Session #2Parallel Session

Venue: LT 2

- 09:00 - 09:30Developing Risk Prediction Models for Cerebrovascular-related Epilepsies
William Leung | Speaker 1
- 09:30 - 10:00Automated behavior classification of julius seizure mutants in Drosophila
Geoffrey Lau | Speaker 2
- 10:00 - 10:30Novel Genomic Landscapes in Glioblastoma: Implications for Precision Neuro-Oncology
Aya El Helali | Speaker 3
- 10:30 - 11:00Liquid Biopsy for Glioblastoma Immune Evasion by Plasmonic Biosensing of Exosomal PD-L1 or PD-1 from Tumor Cells and Their Associated Microglia
Youngjin Lee | Speaker 4

William Leung | Chair

09:00 - 11:00YIC3ISN-APSN Young Investigators Colloquium Session 3Parallel Session

Venue:
Seminar Room 1, 3rd Floor

- 09:00 - 09:24A Sulfonic Acid Analogue for Parkinsons Disease – Preclinical Evidence and Translational Potential
Karthik Dhananjayan | Speaker 1
- 09:24 - 09:48Identification and Evaluation of Natural mGluR5 Modulators from a Traditional Chinese Medicine Library using Zebrafish Larvae Model of Autism
Shubham Dwivedi | Speaker 2
- 09:48 - 10:12Stress disrupts neuromodulatory control of synaptic transmission
Hoyong Park | Speaker 3
- 10:12 - 10:36Unraveling network pharmacology and molecular simulation of thiazole sulfonamides against Parkinson's disease
Waralee Ruankham | Speaker 4
- 10:36 - 11:00Preclinical Assessment of Dependence Liability and Withdrawal Effects of Mitragynine, the Principal Alkaloid of Kratom (Mitragyna speciosa)
Norsyifa Harun | Speaker 5

Victor Anggono | Chair

09:00 - 11:00YIC4ISN-APSN Young Investigators Colloquium Session 4Parallel Session

Venue:
Seminar Room 3, 3rd Floor

- 09:00 - 09:24LINC Complex Dysfunction Disrupts Synaptic Myonuclei and Drives NMJ Decline in Age-Related Sarcopenia
Abu Md Mamum Tarif | Speaker 1
- 09:24 - 09:48Systems Biology Insights into Brain Ageing: Computational Evaluation of Skiammianine Using Network Pharmacology and Molecular Dynamics
Neha | Speaker 2
- 09:48 - 10:12Antihypertensive Reserpine Drug Induces Toxicity and Disrupts Dopamine-Dependent Neurobehavioral Function in Caenorhabditis elegans
RaiArp Sukrit Promtang | Speaker 3

10:12 - 10:36	Investigating the metabolic changes on neuroimmune responses triggered by the first or second systemic inflammation and the potential therapeutic interventions in the murine models <i>Kate Inyoung Oh</i> Speaker 4
10:36 - 11:00	Integrating accelerated ageing in human glial cells <i>Bryan Ng</i> Speaker 5
<i>Yoshifumi Abe</i> Chair	

11:00 - 11:30 Coffee Break & Networking

11:30 - 13:00

S14 Synaptic strengthening in memory consolidation **Parallel Session**

Venue:
Seminar Room 1, 3rd
Floor

11:30 - 12:00	Microglial modulation in cognitive impairment <i>Supin Chompoopong</i> Speaker 1
12:00 - 12:30	Herbal Modulation of Synaptic Plasticity and Memory in REM Sleep– Deprived Mice and Alzheimer’s Mouse Model <i>Peeraporn Varinthra</i> Speaker 2
12:30 - 13:00	Disruption of synaptic strengthening leads to cognitive impairment in transgenic mouse model <i>Sukonthar Ngmpramuan</i> Speaker 3

Supin Chompoopong | Chair

11:30 - 13:00

S15 Metabolic and signaling dysregulation in pathogenesis: molecular mechanisms and pharmacological interventions **Parallel Session**

Venue: LT 1

11:30 - 11:50	Transcriptional and Post-translational Regulation of Nav1.2 Channels: Novel Mechanisms Linking Neuronal Plasticity to Epileptogenesis and Pharmacological Intervention <i>Zhuo Huang</i> Speaker 1
11:50 - 12:10	Targeting Neuron–Glia Interactions: From Mechanistic Insights to Next-Generation Therapeutics <i>Chao Yan</i> Speaker 2
12:10 - 12:30	Microbiota–Neuroepithelial Signalling in Pediatric Epilepsy: From Mechanisms to Microbiota-Based Therapy <i>Xin-an Liu</i> Speaker 3
12:30 - 13:00	The role of gut-brain communication in feeding regulation <i>Yu Fu</i> Speaker 4

Zhuo Huang | Chair

11:30 - 13:00

SS7 Publishing Forum **Parallel Session**

Venue: LT 2

Ying-Shing Chan (HKU), Tasia Asakawa (FENS), Jason Bie (Elsevier), Hong Jin (Elsevier) | Panelists
Wing Ho Yung | Moderators

11:30 - 13:00

OS4 Oral presentation session 4 **Parallel Session**

Venue:
Seminar Room 3, 3rd
Floor

11:30 - 11:53	A thalamocortical circuit with central lateral nucleus and anterior cingulate cortex optimizes flight behavior via subcortical areas <i>Chen Xi</i> Speaker 1
11:53 - 12:16	Between Object and Observer: A Multilevel Account of Aesthetic Judgment <i>Joydeep Bhattacharya</i> Speaker 2
12:16 - 12:38	A Novel Red Sensor for Measurements of Both Phasic and Tonic Dopamine Release In Vivo <i>Kwun Nok Mimi Man</i> Speaker 3
12:38 - 13:00	Exocytosis and dynamics of inhibitory synaptic vesicles <i>Hyokeun Park</i> Speaker 4

Amy Lo | Chair

13:00 - 14:00 Lunch, Exhibitions and Posters (See Poster Lists)

14:00 - 15:00

PL5 PLENARY LECTURE

Venue: LT 3-4

14:00 - 15:00 **Deciphering the Biochemistry of Long-term Memory**
Haruhiko Bito | Plenary Speaker

Woong Sun | Chair

15:00 - 17:00

Venue: LT 1

S16 Revisiting classical monoamine neurochemistry with next-generation monitoring technologies **Parallel Session**

15:00 - 15:30 **Nanoscopic Visualization of Neuromodulatory Transmission**
Jun Julius Zhu | Speaker 1

15:30 - 16:00 **Decoding Dopamine and Serotonin Receptor Crosstalk Using Genetically Encoded Biosensors**
Jihye Seong | Speaker 2

16:00 - 16:30 **Competitive Interactions Shape Social Hierarchy via Prefrontal Dopamine Release**
ChiHye Chung | Speaker 3

16:30 - 17:00 **Hippocampal clock regulates memory retrieval via Dopamine-PKA signaling pathway**
Satoshi Kida | Speaker 4

ChiHye Chung | Chair

15:00 - 17:00

Venue: LT 2

S17 Bridging genetic diversity to clinical innovation in Parkinson's disease: Asia-Pacific perspectives **Parallel Session**

15:00 - 15:30 **AfrAbia-PD-Genomic Consortium: Seeing the Unseen**
Wael Mohamed | Speaker 1

15:30 - 16:00 **Repulsive Guidance Molecule-a as a Therapeutic Target Linking Neurodegeneration and Neuroinflammation in Parkinson's Disease**
Yamashita Toshihide | Speaker 2 (Zoom/Pre-recorded)

16:00 - 16:30 **Population Genomics in Parkinson's Disease: Insights from Asia-Pacific Cohorts**
Yih-Ru Wu | Speaker 3

16:30 - 17:00 **Clinical genetic testing in PD and neurodegenerative diseases: challenges and future directions**
Kaavya Marasimhalu | Speaker 4

Wael Mohamed | Chair

15:00 - 17:00

Venue:

Seminar Room 3, 3rd Floor

S18 Physical exercise and brain health: mechanisms, interventions, and translational perspectives

15:00 - 15:30 **From Daily Behavior to Neural Degeneration: Compositional Time-Use as a Mechanistic Risk Factor for Dementia**
Wei Pang Teo | Speaker 1

15:30 - 16:00 **Sitting, Switching, and Brain Health: A Mechanistic Path from Sedentary Behavior to Strategic Exercise**
Liye Zou | Speaker 2

16:00 - 16:30 **Exercise, neuroprotection and mental health**
Li Zhang | Speaker 3

16:30 - 17:00 **Exercise to promote cognitive health in at-risk older adults**
Teresa Liu-Ambrose | Speaker 4

Sonata Yau | Chair

15:00 - 17:00

Venue:

Seminar Room 1, 3rd Floor

S19 Large-scale network organization underlying brain function - from effective connectivity to dynamics modeling **Parallel Session**

15:00 - 15:30 **Artificial intelligence as a surrogate brain: bridging neural dynamical models and data**
Quanying Liu | Speaker 1

15:30 - 16:00 **Decomposing Functional Connectivity into Tract-Explainable and Tract-Underexplained Components: Insights into Human Brain Functional Organization**
Daqin Guo | Speaker 2

16:00 - 16:30 **Emergence of Cortical Hierarchy in Harmonizing Functional and Effective Connectome with Large-scale Biophysical Modelling**
Xiaoyu Chen | Speaker 3

16:30 - 17:00

Stiff network modeling reveals behavior-sensitive dimensions of large-scale brain network underlying individual differences*Changsong Zhou* | Speaker 4*Changsong Zhou* | Chair**17:05 - 17:15****Closing Ceremony and Announcement***Venue: LT 3-4**~ End of Program ~*

For the latest updates and any changes to the programme, please refer to the online meeting planner or the on-site notice board.