Association for the Study of Neurons and Diseases

AND is a non-profit organization, registered in Toronto, Canada

Major Aim of the meeting

Promoting new and cutting edge research in neuroscience; encouraging international information exchange and scientific collaboration; providing a platform for active scientists to discuss new findings.

Previous meetings:

2006	Toronto, Canada
2007	Toronto, Canada
2008	Seoul, South Korea
2009	Toronto, Canada
2010	Bristol, UK
2011	Toyama, Japan
2012	Montreal, Canada
2013	Singapore
2014	Barcelona-Madrid, Spain
2015	Xian-Chengdu, China
2016	Vancouver, Canada
2017	Tormina, Italy
2018	Taiwan
2019	Queenstown, New Zealand
2020	St Petersburg (canceled due to Covid)
2021	Covid
2022	Covid
2023	Sapporo, Japan
2024	Qingdao China
2025	Strasburg, France
2026	Fuzhou, China
2027	to be determined



Association for the Study of Neurons and Brain Diseases

October 22
6:30 pm-9 pm Check in

October 23
All speakers have 20 min talk (highly recommend to prepare not more than 25 slides; ideally use the USB to upload the PPT talks), and 5 min discussion. The time will be controlled tightly by the tough chair. If your talk is too long, there will be NO discussion. If you plan to use your own computer, please bring appropriate connectors.

Day 1
8:45-9:00 Brief welcome statement

9:00-10:40 Section I (4 speakers)
Brain Diseases
Dongmin Yin: The mechanistic and translational study for aspirin's neuroprotection against ischemic stroke
Michel Salter: New insights into P2X7 receptor-mediated cell death
Dan Xu: Loss of KIF11 riggers mitotic surveillance stopwatch pathway and alters cell fate to induce microcephaly
Bo Peng: Repopulation and replacement of microglia: from bench to clinical therapies

10:40-11:10 Coffee break with local sweets

11:10-12:25 Section II (3 speakers)
Nociception and pain
Uhtaek Oh: Tentonin in nociceptive pathway
Xu Zhang: Specific neuronal loss and aging-associated macrophages underlying somatosensory decline in aged dorsal root ganglion
Min Zhuo: Cortical positive facilitation/feedback in pain and emotion

12:25-1:30 Lunch break

2:00-3:40 Section III (4 speakers)
Neuropeptides and brain
Haocheng Zhou: Online decoding of spontaneous pain based on cortical synchronization for closed-loop modulation
Hui Xu: A brainstem-to-anterior cingulate cortex serotonergic circuit for the regulation of pain and anxiety

Tao Chen: Opposing regulation by Oxytocin of affective versus physical pain in the mouse insular cortex
Xuhui Li: Oxytocin regulates ACC neural circuits and plasticity to alleviate chronic pain and negative affects

3:40-4:10 Coffee break

4:10-5:50 Section IV (4 speakers)
Alzheimer's Disease
Yu Zhou: From metabolism to cognition: can LEAP2 become a new hope for Alzheimer's Disease Treatment?
Meewhi Kim: Mechanisms of Abeta Generation and Pathogenesis of Alzheimers' Disease
Vlasova Olga: Modulation of Astroglial Cell Activity Restores Cognitive Function in Mice with an AD model
Bezprozvanny Ilya: Calcium Signaling and Alzheimers' Disease Progression

5:50-7:00 Wine reception and posters
7:00 Dinner

October 24
Day 2
9:00-10:40 Section I (4 speakers)
Plasticity and autism
Zhengping Jia: Role of AMPA Glutamate Receptors in Synaptic Plasticity and Brain Disorders
Lisa Bradley: The Xp22.11 locus: dissecting the core features of autism
Graham Collingridge: Dysregulated synaptic plasticity in neurodevelopmental and neurodegenerative disease
Wucheng Tao: The crosstalk of GluD1 and GABA-C receptors regulates ASD-like behaviors

10:40-11:10 Coffee break with local sweets

11:10-12:50 Section II (4 speakers)
Receptors and ion channels
Shujia Zhu: Unravelling the molecular logic of NMDA receptor diversity in the brain
Luyang Wang: The role of calcium-dependant facilitation of presynaptic calcium channels in synaptic plasticity
Ekaterina Pchitskaya: From Transformers to Graphs: AI-Driven Analysis of Neuronal Activity and Dendritic Spine Morphology
Tsuyoshi Miyakawa: A Sensitive Statistical Method for Detecting Biological Similarity in Single-Cell and Personal Omics

12:25-1:30 Lunch break

3:10-9:00 pm Tour/dinner and social activity

October 25
Day 3
9:00-10:40 Section I (4 speakers)
Memory, sleep and astrocytes
Bong-Kiun Kaang: Engram Synapse: Structure and Function
Sangyoo Ko: Dynamics of memory engram cells in health and disease
Kaoru Inokuchi: Sleep neural code generates the evolving negativity bias under stress
Yong-Seok Lee: Impacts of aberrant activation of astrocyte on hippocampal spatial coding and memory

10:40-11:10 Coffee break with local sweets

11:10-12:25 Section II (3 speakers)
Brain circuits and complex behaviors
Shuang Qiu: Learning structure configures prefrontal ensembles for flexible defensive control
Ying Shen: The cerebellar modulation on sleep-wake cycle
Philippe P Monnier: Blood borne ATP links maternal hypertension to neuronal polarity

12:25-1:30 Lunch break

2:00-3:40 Section III (4 speakers)
Pain and plasticity
Haili Pan: Spinal SOM+ neurons encode mechanical alloknesis and allodynia through distinct peptidergic modules
Xiaoyao Li: The role of retrosplenial cortex in the pain regulation
Qi-Yu Chen: Ketamine Alleviates Anxiety-Like Behavior by Inhibiting Presynaptic Long-Term Potentiation in the Anterior Cingulate Cortex of Adult Mice
Qian Song: Dual ACC Circuits in Pain: Spinal Descending Analgesia and VTA Emotional Loop

3:40-4:10 Coffee break

4:10-5:50 Section IV (4 speakers)
Brain circuits and complex behaviors
Yan Li: Thalamic reticular nucleus: a pivotal node for social memory
Satoshi Kida: Representation of Food Recognition, Memory, and Valence in the Brain
Yong Rao: Circuit activity in the maintenance of neuronal identity
Baoming Li: Maternal Care is Essential for the Development of Prefrontal Cortical Functions of Offsprings

5:50- Celebration for 20th AND
AND business meeting:
Mol Brain (Kaang)
Mol Pain (Min)
Hello Bio

Best poster awards
Investigator awards

6:30-midnight Banquet Dinner