

The 8th International Conference for Neurons and Brain Diseases (2013)

CeLS auditorium, Center for Life Sciences, National University of Singapore, Singapore

Program

2 July 2013 (Tuesday)

- 8:00 Registration
8:00-9:00 Coffee and Refreshments; Poster set-up
9:00-9:10 **Opening Remarks**
Tuck Wah Soong, Meeting Organizer, National University of Singapore
Khay Guan Yeoh, Dean, Yong Loo Lin School of Medicine, National University of Singapore
Min Zhuo, AND Director, University of Toronto
- Session 1: Brain Disease I (Chair: Fengwei Yu)**
- 9:10-9:30 **Edward Koo**, University of California, Dan Diego, USA
Synaptic damage in Alzheimer disease: a complex problem
- 9:30-9:50 **Kah-Leong Lim**, National Neuroscience Institute, Singapore
Harnessing the neuroprotective function of parkin for the development of Parkinson's disease therapeutics
- 9:50-10:10 **Uhtaek Oh**, Seoul National University, Korea
A Neurological Disorder in TRPM2 Deficient Mice
- 10:10-10:30 **Ferdinando Nicoletti**, University of Rome, Italy
New vistas of metabotropic glutamate receptors
- 10:30-11:00 Coffee Break**
- Session 2: Neurons and Synapses (Chair: Hongyan Wang)**
- 11:00-11:20 **Yong Rao**, McGill University Health Centre, Canada
Visual circuit football predictions assembly requires fine tuning of borderless
- 11:20-11:40 **Fengwei Yu**, Temasek Life Sciences Laboratory, Singapore
Mechanisms of neuronal pruning in drosophila
- 11:40-12:00 **Stephen Ferguson**, Robarts Research Institute, Canada
Glutamate receptor signaling in models of neurodegenerative disease

12:00-12:20 **Jun Xia**, Hong Kong University of Science and Technology, China
PICK1 Regulates Dense Core Vesicle Trafficking

12:20-13:30 Lunch Break

Program

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Session 3: Synaptic plasticity I (Chair: Naranjo Jose)

13:30-13:50 **Tuck Wah Soong**, National University of Singapore, Singapore
Alternative structures of calcium channels for selective functions

13:50-14:10 **Yasunori Hayashi**, RIKEN Brain Science Institute, Japan
Quantitative view of AMPA receptor phosphorylation

14:10-14:30 **Bao Lan**, Institute of Biochemistry and Cell Biology, Shanghai, China
MEC-17 is required for alpha-tubulin acetylation and neuronal migration in cortical neurons

14:30-14:50 **Graham Collingridge**, Seoul National University, Korea
LTD Mechanisms: picking up on the details

14:50-15:10 **Zhengping Jia**, University of Toronto, Canada
Role of limK1 in long-lasting synaptic plasticity and long-term memory

15:10-15:40 Tea Break

Session 4: Pain and plasticity I (Chair: Xinzhong Dong)

15:40-16:00 **Fei Luo**, Institute of Psychology, Chinese Academy of Sciences, China
Frontal/Amygdala imbalance in depression-pain interaction

16:00-16:20 **Sanjay Khanna**, National University of Singapore, Singapore
A role of forebrain medial septum in the affective-motivational dimension of pain

16:20-16:40 **Min Zhuo**, University of Toronto, Canada
Long term potentiation within the cortical network

16:40-17:00 **Jon Levine**, University of California, San Francisco, USA
Its past, enlightened to perceive new periods of pain: Nociceptor mechanisms in the transition from acute to chronic pain

17:00-17:20 **Xu Zhang**, Institute of Neuroscience, Shanghai, China
The function of FGF13 in the nervous system

17:20-18:30 Posters and Wine Reception

Program

3 July 2013 (Wednesday)

8:00-9:00 Coffee and Refreshments

Session 5: Memory and Emotion I (Chair: Satoshi Kida)

9:00-9:20 **Bong-Kiun Kaang**, Seoul National University, Korea
Role of LLP in synaptic plasticity and memory

9:20-9:40 **Adam Claridge-Chang**, Duke-NUS Medical School, Singapore
A genetically tractable model of anxiety-related behavior

9:40-10:00 **Kaoru Inokuchi**, University of Toyama, Japan
Synaptic reconsolidation

10:00-10:20 **Ajai Vyas**, Nanyang Technological University, Singapore
Intersection of sex and fear in the rat brain

10:20-10:40 **Saji Kumar Sreedharan**, National University of Singapore, Singapore
Memory beyond the circle: metaplasticity of synaptic tagging and capture

10:40-11:00 Coffee Break

Session 6: Pain and plasticity II (Chairs: Khanna Sanjay)

11:00-11:20 **Shao-Jun Tang**, University of Texas, USA
Mechanism of HIV-associated pathological pain

11:20-11:40 **Xinzhong Dong**, John Hopkins University, USA
Descending facilitation of presynaptic terminals is a key determinant of chronic pain

11:40-12:00 **Fusao Kato**, Jikei University School of Medicine, Japan
The central amygdala - where pain meets fear

12:00-12:20 **Jianguo Gu**, University of Cincinnati, USA
Cellular and molecular mechanisms underlying the sense of light touch in Mammals

12:20-12:40 **Bai Chuang Shyu**, Institute of Biomedical Sciences, Academia Sinica, Taiwan
Optoexcitation of reticular thalamic nucleus in regulation of cortical seizure

13:00-14:00 Lunch Break

14:00- Half-day Tour + dinner

Program

4 July 2013 (Thursday)

8:00- 9:00 Coffee and Refreshments

Session 7: Synaptic Plasticity II (Chairs: Bong-Kiun Kaang)

9:00-9:20 **Haruhiko Bito**, University of Tokyo, Japan
New roles of CaM kinases in neuronal plasticity and brain development

9:20-9:40 **Haiqing Zhao**, John Hopkins University, USA
The on and off of olfactory signal transduction

9:40-10:00 **Makoto Tominaga**, Okazaki Institute for Integrative Bioscience, Japan
Physiological function of TRPV4 in choroid plexus

10:00-10:20 **Carlos F Ibanez**, National University of Singapore, Singapore
Genetic dissection of neurotrophin signaling through the death receptor p75NTR

10:20-10:40 Coffee Break

Session 8: Memory and emotion II (Chair: Tsuyoshi Miyakawa)

10:40-11:00 **Satoshi Kida**, Tokyo University of Agriculture, Japan
Role of Calcineurin in Enhancement of Fear Memory after Retrieval

11:00-11:20 **Xia Zhang**, University of Ottawa, Canada
Glia and Memory

11:20-11:40 **Suresh Jesuthasan**, Duke-NUS Medical School, Singapore
Asymmetric processing of light and smell

11:40-12:00 **Brian Chen**, McGill University, Canada
Protein concentration quantification in single cells in vivo

12:00-13:00 Lunch Break

Session 9: Brain Disease II (Chair: Kah Leong Lim)

- 13:00-13:20 **Guo-li Ming**, John Hopkins University, USA
Function of risk genes for mental disorders in neural development
- 13:20-13:40 **Chian-Ming Low**, National University of Singapore, Singapore
Neuroprotection by benzimidazoles in a rat stroke model
- 13:40-14:00 **Sean Cregan**, University of Western Ontario, Canada
Mechanism of neuroinflammation induced neural precursor cell death
- 14:00-14:20 **Tsuyoshi Miyakawa**, Fujita Health University, Japan
Bidirectional change of maturation status of dentate gyrus neurons: relevance to neuropsychiatric diseases

14:20-14:50 Coffee Break

Session 10: Brain Disease III (Chair: Chian Ming Low)

- 14:50-15:20 **Xiangyao Li**, Xi'an Jiaotong University, China
The basic properties of IG cells from adult mice
- 15:20-15:40 **Jose Naranjo**, CNB-CSIC, Spain
DREAM-mediated neuroprotection in AD
- 15:40-16:00 **Guoqiang Bi**, University of Science and Technology, China
Mitochondrial flash and synaptic plasticity in hippocampal neurons
- 16:00-16:20 **Fen-Biao Gao**, University of Massachusetts Medical School, USA
Molecular pathogenic mechanisms of frontotemporal dementia
Mol Brain Award Recipient
- 16:20-16:40 **Yves De Koninck**, Université Laval, Canada
Chloride extrusion enhancers as novel therapeutics
Mol Pain Award Recipient
- 16:40-17:00 **AND Member Annual Meeting**
(Chairs: Min Zhuo, Bong-Kiun Kaang and Satoshi Kida)
- 17:00-17:30 Coffee Break**
- 17:30-18:30 Molecular Brain, Molecular Pain, and AND Investigator Awards;
Poster Awards and Concluding Remarks**
- 18:30 Dinner Party (Ticket holders ONLY)**