Joint Usage/Research Program
Japan-Korea Neural Tissue culture seminar
Tokyo Medical and Dental University 鈴木章夫記念講堂（M&D タワー2F）
June 16th 2012 AM10:00-PM6:00

・TIME TABLE

10:00-10:10 **Opening Remark**
10:10-11:55 **Session1** *"Stem cell and novel technologies"*
10:10-11:55 **Lunch Break**
12:50-14:25 **Session2** *"Molecular pathology of neurological diseases"*
14:25-14:40 **Coffee Break**
14:40-16:05 **Session3** *"Molecular pathways in development"*
16:05-16:10 **Short Break**
16:10-17:50 **Session4** *"Pathology and cell signaling"*
17:50-18:00 **Closing Remark**
18:00-19:30 **Reception**

・TALK SCHEDULE

Opening Remark

10:00-10:10 Hidehiro Mizusawa (Tokyo Medical and Dental University, Japan)

Session1 *"Stem cell and novel technologies"*
chaired by Sang-Hun Lee (Hanyang University)
Hideki Mochizuki (Osaka University)

10:10-10:35 "Human neural stem cell-based gene therapy for brain tumors"
Seung U. Kim[1] and Hong J. Lee[2]
[1]Medical Research Institute, Chung-Ang University College of Medicine, Seoul, Korea
[2]Department of Neurology, University of British Columbia, Vancouver, Canada

10:35-11:00 "Developmental information-based engineering of cultured neural stem cells for functional dopamine neuron generation"
Sang-Hun Lee
Department of Biochemistry & Molecular Biology, College of Medicine, Hanyang

University, Seoul, Korea

11:00-11:10 "Xeno-free defined culture conditions for generation of human induced pluripotent stem cells and neuronal differentiation induced from them"

Takumi Miura, Masakazu Machida, Akihiro Hosoda, Takashi Ohkura, Akihiro Umezawa and Hidenori Akutsu

Dept of Reproductive Biology, Center for Regenerative Medicine, National Research Institute for Child Health and Development, Tokyo, Japan

11:10-11:35 "Myelination in coculture of NGF-primed PC12 cells and immortalized adult Fischer rat Schwann cells (IFRS1)"

Kazunori Sango, Kazuhiko Watabe

ALS/Neuropathy Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

11:35-11:45 "Establishment and characterization of human peripheral nerve microvascular endothelial cell lines: A new *in vitro* blood-nerve barrier (BNB) model"

Masaaki Abe[1], Yasuteru Sano[1], Toshihiko Maeda[1], Fumitaka Shimizu[1], Hiroyo Haruki[1], Kazuyuki Saito[2], Ayako Tasaki[1], Motoharu Kawai[1] and Takashi Kanda[1]

[1]Department of Neurology and Clinical Neuroscience, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan. [2] Department of Neurology and Neurological Science, Tokyo Medical and Dental University Graduate School, Tokyo, Japan.

11:45-11:55 "Establishment of conditionally immortalized microvascular endothelial cells from rat spinal cord forming the blood-spinal cord barrier"

Toshihiko Maeda[1], Yasuteru Sano[1], Masaaki Abe[1], Fumitaka Shimizu[1], Yoko Kashiwamura[1], Sumio Ohtsuki[2],Tetsuya Terasaki[2], Masuo Obinata[3], Masatsugu Ueda[4], Ri-ichi Takahashi[4] and Takashi Kanda[1]

[1]Department of Neurology and Clinical Neuroscience, Yamaguchi University Graduate School of Medicine, Yamaguchi, Japan, [2]Department of Molecular Biopharmacy and Genetics, Graduate School of Pharmaceutical Sciences, Tohoku University, Miyagi, Japan, [3]Department of Cell Biology, Institute of Development, Aging and Cancer, Tohoku University, Miyagi, Japan, [4]TheYS Institute, Inc., Tochigi, Japan

Break1 (lunch) 11:55-12:50

Session2 *"Molecular pathology of neurological diseases"*

chaired by Haeyoun Suh-Kim (Ajou University)
Takao Takeshima (Tominaga Hospital)

12:50-13:15 "Molecular pathology of SCA6"

Hidehiro Mizusawa

Department of Neurology and Neurological Science, Tokyo Medical and Dental University, Graduate School of Medical and Dental Sciences, Center for Brain Integration Research, Tokyo, Japan

13:15-13:40 "Pathomechanisms of PQBP1 in neurons and neural stem cells causing learning defect and microcephaly"

Hitoshi Okazawa

Department of Neuropathology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

13:40-14:05 "Non-cell autonomous therapeutic effects of Hsp40 on polyglutamine disease models via its exosome-mediated secretion"

Yoshitaka Nagai, Toshihide Takeuchi, H. Akiko Popiel, Keiji Wada

Department of Degenerative Neurological Diseases, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Japan

14:05-14:15 "HMGB1 as a therapeutic molecule candidate for spinocerebellar ataxia type1"

Hikaru Ito, Keisuke Kurosu and Hitoshi Okazawa

Department of Neuropathology, Medical Research Institute, Tokyo Medical and Dental University, Tokyo, Japan

14:15-14:25 "Toxicity of non-coding pentanucleotide repeats causing spinocerebellar ataxia type 31 (SCA31), an autosomal dominant ataxia common in Japanese"

Yusuke Niimi, Kinya Ishikawa, Nozomu Sato and Hidehiro Mizusawa

Department of Neurology, Graduate School, Tokyo Medical and Dental University, Tokyo, Japan

Break2 (coffee) 14:25-14:40

Session3 *"Molecular pathways in development"*

chaired by Woong Sun (Korea University)
Toya Ohashi (Jikei University)

14:40-15:05 "NeuroD, a proneural bHLH gene, relays metabolic signals to nuclei"

In-Su Cho[1,2], Young-Guk Shin[1], Seunghwan Jung[1,2], Young-Don Lee[1,3], Sung-Soo Kim[1,4], Haeyoung Suh-Kim[1,2,3]

[1]Departments of Anatomy, [2]Neuroscience Graduate Program, [3]BK21, Division of Cell Transformation and Restoration, [4]Center for Cell Death Regulating Biodrug, Ajou University, School of Medicine, Suwon, Korea

15:05-15:30 "Suppression of Drp1 modulates survival of developing chick motoneurons during the period of normal programmed cell death"

So Yoen Choi, Joo Yeon Kim, Hyun-wook Kim, Bongki Cho, Hyun Kim, Im Joo Rhyu, Woong Sun

Department of Anatomy, College of Medicine, Korea University, Seoul, Korea

15:30-15:55 "Organotypic hippocampal slice cultures for studies of postnatal neurogenesis"

Tatsunori Seki

Department of Histology and Neuroanatomy, Tokyo Medical University, Tokyo, Japan

15:55-16:05 "Analysis of the function of TSC1, a causative gene for tuberous sclerosis, in the formation of actin cytoskeleton and cell polarity."

Maki Ohsawa[1,2,3], Toshiyuki Kobayashi[1,4], Hidehiro Okura[1,5], Masashi Mizuguchi[2], Okio Hino[1,4]

[1]Dept. Pathol. Oncol., Juntendo Univ. Sch. Med., Tokyo, Japan, [2]Dept. Dev. Med. Sci., Grad. Sch. Med., Univ. Tokyo, Tokyo, Japan, [3]Dept. Pediatr., Grad. Sch. Med., Univ. Tokyo, Tokyo, Japan, [4]Dept. Mol. Pathogenesis, Juntendo Univ. Grad. Sch. Med., Tokyo,Japan, [5]Dept. Neurosurg., Juntendo Univ. Grad. Sch. Med., Tokyo Japan

Break3 16:05-16:10

Session4 *"Pathology and cell signaling"*

chaired by Sang Yoon Lee (Ajou University)
Kosei Takeuchi (Niigata University)

16:10-16:35 "Regional cytoplasmic TDP-43 mislocalization is recapitulated in non-human primate model of ALS"

Takanori Yokota[1], Mio Tajiri[1], Takuya Ohkubo[1], Azusa Uchida[1], Hiroki Sasaguri[1], Nobuyuki Kimura[2], Toshiki Uchihara[3], Hidehiro Mizusawa[1]

[1]Dept of Neurology and Neurological Science, Tokyo Medical and Dental University, Graduate School of Medicine, Tokyo, Japan, [2]Tsukuba Primate Research Center, National Institute of Biomedical Innovation, Ibaraki, Japan, [3]Department of Neuropathology, Tokyo Metropolitan Institute for Neuroscience, Tokyo, Japan

16:35-17:00 "LIPOPROTEIN LIPASE IS A NOVEL Aβ-BINDING PROTEIN THAT PROMOTES GLYCOSAMINOGLYCAN-DEPENDENT CELLULAR UPTAKE OF Aβ IN ASTROCYTES"

Makoto Michikawa

Departments of Biochemistry, Nagoya City University, Graduate School of Medicine, Aichi, Japan

17:00-17:25 "Association of Membrane Phosphoinositide with Glial TLR4 Signaling" **Nguyen Thi Ngoc Tu, Yong Min Kim, Sang Yoon Lee**

Neuroscience Graduate Program, Chronic Inflammatory Disease Research Center, Ajou University, School of Medicine, Suwon, Korea

17:25-17:50 "Lipid-mediated axon guidance in the developing spinal cord"

Hiroyuki Kamiguchi

RIKEN Brain Science Institute, Saitama, Japan

Closing Remark

17:50-18:00 Seung Up Kim (Chungang Universtity, Korea)

Reception will be held at "18:00-19:30" in "Grill Saints" (9th floor, Building 1 west).

Please join it!

Fee 4000 Yen