CLS-iCeMS Joint Symposium

Crossing Boundaries: Stem Cells, Materials, Mesoscopic Sciences, and Beyond

Host:	**Peking-Tsinghua Center for Life Sciences, Peking University**
	Institute for Integrated Cell-Materials Sciences, Kyoto University
Venue (Day 1, 2):	**Science Lecture Hall, 2F Zhongguanyuan Global Village PKU**
	Conference Room in Building No.1
Venue (Day3):	**Medical Science Building, B323, Tsinghua University**

April 20th

Location:

Science Lecture Hall, 2nd floor, Building 1, Zhongguanyuan Global Village PKU

Opening Remarks & Presentation: Introduction of CLS **Prof. Yi Rao (CLS/PKU)**	**9:40-9:50**
Opening Remarks & Presentation: Introduction of iCeMS **Prof. Norio Nakatsuji (iCeMS)**	**9:50-10:00**

Session: Cellular and Molecular Biology (I)

Prof. Ouyang Qi (CLS/PKU) *Reverse Engineering in Synthetic Biology*	**10:00-10:20**
Prof. Yoshie Harada (iCeMS) *Development of a Novel Single-Molecule Imaging Technique Using Fluorescent Diamond Nanoparticles*	**10:20-10:40**
Coffee Break	**10:40-11:00**
Prof. Liangyi Chen (PKU) *Visualization and Mechanistic Study of Clathrin-dependent Fast Vesicle Recycling in Pancreatic Beta Cells*	**11:00-11:20**
Prof. Kazumitsu Ueda (iCeMS) *Mechanism of function and regulation of ABCA1 in HDL formation*	**11:20-11:40**
Prof. Wanli Liu (THU) *Capturing the Dynamics of B Cell Activation Using High Resolution High Speed TIRFM Imaging*	**11:40-12:00**

Lunch	**12:00-13:30**
Session: Cellular and Molecular Biology (II)	
Dr. Peter Carlton (iCeMS) *Chromatin structure visualized with super-resolution microscopy*	**13:30-13:50**
Prof. Yanyi Huang (PKU) *Quantitatively Measure the Cell Migration: Blank-Filling on A Chip*	**13:50-14:10**
Dr. Takuya Yamamoto (iCeMS/CiRA) *Reversion of somatic splicing during the reprogramming process*	**14:10-14:30**
Prof. Peng Xi (PKU) *λ/10 Resolution CW STED Nanoscopy and Its Application in Cellular Imaging*	**14:30-14:50**
Dr. Dan Ohtan Wang (iCeMS) *Spatial Regulation of Gene Expression in Neurons during Long-term Plasticity*	**14:50-15:10**
Group Photo of all attendees	**15:10-15:20**
Coffee Break & Free Discussion	**15:20-16:00**
MOU Agreement Signing Ceremony	**16:00-17:00**
Joint Symposium Welcome Reception	**17:30-19:30**

April 21st

Location:

Science Lecture Hall, 2nd floor, Building 1, Zhongguanyuan Global Village PKU

Session: Nanomedicine, Drug Delivery and Perspectives	
Prof. Mitsuru Hashida (iCeMS) *Cell-specific Delivery of Nucleic Acid Drugs with a Combination of Glycosylated Bubble Lipoplexes and Ultrasound Exposure*	**9:40-10:00**

Prof. Xing Chen (PKU) *Carbon Nanotube-Assisted Optical Activation of TGF-signaling*	**10:00-10:20**
Dr. Tatsuya Murakami (iCeMS) *Biochemical Engineering of Mesoscale Lipid-Protein Composite Biomaterials for Drug Delivery System*	**10:20-10:40**
Coffee Break	**10:40-11:00**
Prof. Weiping Gao (THU) *In Situ, Site-Specific Growth of Stealth Polymers from Proteins for Targeted Drug Delivery*	**11:00-11:20**
Prof. Ying Luo (PKU) *Dendrimer-based Delivery Systems for Small RNA Delivery*	**11:20-11:40**
Lunch	**11:40-12:30**
Poster Session	**12:30-14:00**
Session: Mesoscopic Integration of Cell and Material Sciences	
Prof. Guoqiang Chen (THU) *Microbial Polyhydroxyalkanotes as Tissue Engineering Materials*	**14:00-14:20**
Prof. Yong Chen (iCeMS) *Development strategy of artificial cellular microenvironments*	**14:20-14:40**
Prof. Zigang Ge (PKU) *Cells Behave Distinctly within Sponges and Hydrogels due to Differences of Internal Structures*	**14:40-15:00**
Coffee Break	**15:00-15:20**
Prof. Jianzhong Xi (PKU) *Genome-Wide Screen of Functional Genes Regulating Cancer Metastasis*	**15:20-15:40**
Prof. Akihiro Kusumi (iCeMS) *Organizing Principles of the Plasma Membrane: Three-tiered Hierarchical Meso-scale Domain Architecture Revealed by Single-molecule Tracking*	**15:40-16:00**
Prof. Delin Kong (Nankai U) *RGD peptide coated poly (epsilon-caprolactone) grafts induced rapid endothelialization in rats and rabbits*	**16:00-16:20**

Prof. Chunyang Xiong (PKU) *Quantitative Investigation Of Cell-Matrix Interactions Using Traction Force Microscopy*	**16:20-16:40**
Prof. Yanan Du （THU） *Micro-engineered biomaterials with bio-mimetic heterogeneity for controlling cell fates*	**16:40-17:00**
Coffee Break &Free Discussion	**17:00-17:30**
Dinner	**17:30-19:30**

April 22nd

Location：

Medical Science Building, B323, Tsinghua University

Session: Stem Cell Sciences and Technologies

Prof. Norio Nakatsuji (iCeMS) *Chemical Control of Human Pluripotent Stem Cell Differentiation and Creation of Neurodegenerative Disease Model Cells*	**9:40-10:00**
Prof. Fuchou Tang (PKU) *Tracing Pluripotency of Mammalian Early Embryos and Embryonic Stem Cells by Single Cell RNA-Seq Analysis*	**10:00-10:20**
Prof. Kehkooi Kee (THU) *Studying Human Germ Cell Development in Vitro Differentiation of Stem Cells*	**10:20-10:40**
Coffee Break	**10:40-11:00**
Prof. Hong Kui Deng (CLS/PKU) *Directed Differentiation of Human Pluripotent Stem Cells*	**11:00-11:20**
Prof. Wei Guo (THU) *PTEN, Hematopoietic Stem Cells and Leukemia Stem Cells*	**11:20-11:40**
Prof. Jie Na (THU) *Aurora Kinase B and C Have Distinct Functions in Mouse Oocytes and Preimplantation Embryos*	**11:40-12:00**

Lunch	**12:00-12:30**
Poster Session	**12:30-14:00**
Prof. Qin Shen (CLS/THU) *Neural Stem Cells: Lineage and Niche*	**14:00-14:20**
Prof. Motonari Uesugi (iCeMS) *Small Molecule Tools for Cell Biology and Cell Therapy*	**14:20-14:40**
Prof. Xiaohua Shen (THU) *Epigenetic Regulation of Stem Cell Pluripotency and Oncogenesis by Polycomb Group Proteins*	**14:40-15:00**
Prof. Xing Chen (CLS/PKU) *Chemically Probing Glycosylation in Stem Cells*	**15:00-15:20**
Coffee Break	**15:20-15:40**
Prof. Yasuhiro Yamada (iCeMS/CiRA) *Transient expression of reprogramming factors in vivo results in cancer-like phenotype in mice*	**15:40-16:00**
Prof. Yugang Wang (PKU) *The Intrinsic Dynamic Equilibrium Between Cancer Stem Like Cells and Non-Stem Cancer Cells in Human Cancer Cell Populations*	**16:00-16:20**
Prof. Yangming Wang (PKU) *Micro-Regulators in Embryonic Stem Cells*	**16:20-16:40**
Closing Remarks: **Prof. Yigong Shi (CLS/THU）& Prof. Norio Nakatsuji (iCeMS)**	**16:40-17:00**
Tsinghua Campus Tour & Dinner	**17:00-19:30**
End of Joint Symposium	

* Note: Each session has two chairpersons, one from China and one from Japan, the chairperson's names are colored in blue.