

The 27th Hot Spring Harbor International Symposium
Frontiers in Stem Cell Research and Reprogramming
Medical Institute of Bioregulation, Kyushu University

October 31 - November 1, 2017

Collaborative Research Station-I, Hospital Campus, Kyushu University, Fukuoka, JAPAN

Tuesday, October 31, 2017

10:00 - 10:05 Opening Remarks:
 Yusaku Nakabeppu (Director of Medical Institute of Bioregulation)

Session 1: Pluripotent stem cell and differentiation

Chair: **Hiroyuki Sasaki**

10:05-10:40 **Ludovic Vallier** (University of Cambridge, UK)
 Modeling Metabolic disorders using human Pluripotent Stem Cells

10:40-11:05 **Takanori Takebe** (Yokohama City University, Japan)
 Organoid Models of Human Liver Development towards Therapy

11:05-11:30 **Katsuhiko Hayashi** (Kyushu University, Japan)
 Stem cell-based in vitro gametogenesis for a better understanding of
 oocyte differentiation

11:30-11:40 Group Photos

11:40-13:00 Lunch (meeting invited speakers only)

Session 2: Stem cell and development

Chair: **Yoshihiro Baba**

13:00-13:35 **Frédéric Lemaigre** (Université catholique de Louvain, Belgium)
 Dynamics of gene regulatory networks in hepatocyte differentiation

13:35-14:00 **Tomoya Kitajima** (RIKEN CDB, Japan)
 Roles of large cytoplasmic size of eggs

14:00-14:25 **Satoshi Yamazaki** (University of Tokyo, Japan)
 Understanding of bone marrow environment and control of
 hematopoietic stem cells

14:25-14:45 Coffee break

Session 3: Short Talks by Young Scientists

Chair: **Hiroki Shibata**

14:45-16:35 Short talks of 11 minutes each

16:35-16:55 Coffee break

Session 4: Direct reprogramming

Chair: **Takeshi Bamba**

16:55-17:30 **Marius Wernig** (Stanford University School of Medicine, USA)
How to make a neuron

17:30-17:55 **Masaki Ieda** (Keio University, Japan)
Direct Cardiac Reprogramming, Cell Fate Decision, and Heart
Regeneration

17:55-18:20 **Atsushi Suzuki** (Kyushu University, Japan)
Direct reprogramming to hepatic and intestinal lineages

19:30- **Dinner party** (by invitation only)

Wednesday, November 1, 2017

Session 5: Stem cell and disease

Chair: **Keiichi Nakayama**

10:00-10:35 **Nick Barker** (A*STAR Institute of Medical Biology, Singapore)
Lgr5+ Stem Cells in Epithelial Homeostasis, Regeneration and Cancer

10:35-11:00 **Tomoyuki Yamaguchi** (University of Tokyo, Japan)
Interspecies organogenesis generates autologous functional islets

11:00-11:25 **Seiji Okada** (Kyushu University, Japan)
Spinal cord regeneration and astrogliosis

11:25-13:30 Lunch (meeting invited speakers only)

Session 6: Stem cell aging and technology

Chair: **Yasuyuki Ohkawa**

13:30-14:05 **Han Li** (Institut Pasteur, France)
Cellular senescence promotes cellular plasticity in muscle
reprogramming and regeneration

14:05-14:30 **Keiyo Takubo** (National Center for Global Health and Medicine, Japan)
Metabolic regulation and hematopoietic stem cell aging

14:30-14:55 **Yusuke Torisawa** (Kyoto University, Japan)
Cell-generated niches for organ-on-a-chip microdevices

14:55-15:00 Closing Remarks: **Atsushi Suzuki** (Kyushu University, Japan)