

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

iPSCs: A Decade of Progress and Beyond (C7)

March 25-29, 2018 • Resort at Squaw Creek • Olympic Valley, California, USA

Scientific Organizers: Shinya Yamanaka, Haruhisa Inoue and Yanhong Shi

Supported by the Directors' Fund

Abstract & Scholarship Deadline: November 30, 2017 / Abstract Deadline: December 21, 2017 / Discounted Registration Deadline: January 18, 2018

SUNDAY, MARCH 25

Arrival and Registration

MONDAY, MARCH 26

Welcome and Keynote Address

Shinya Yamanaka, Gladstone Institute of Cardiovascular Disease, USA, Center for iPSC Cell Research and Application, Kyoto University, Japan

iPSC Technology – The Past, Present and Future

iPSC-Based Disease Modeling

Fred (Rusty) H. Gage, The Salk Institute for Biological Studies, USA
Modeling Human Neuronal Function using Reprogrammed Cells

Rudolf Jaenisch, Whitehead Institute for Biomedical Research, USA
Modeling Human Disorders Using Patient iPSCs

Yanhong Shi, Beckman Research Institute of City of Hope, USA
Modeling Neurological Diseases Using Patient iPSCs

Short Talk(s) Chosen from Abstracts

Drug Discovery using iPSC Platforms

Haruhisa Inoue, Center for iPSC Cell Research and Application, Kyoto University, RIKEN, Japan

Human Pluripotent Stem Cells in Neurological Drug Discovery

Ricardo E. Dolmetsch, Novartis Institutes for BioMedical Research, USA

Talk Title to be Announced

David Piper, Thermo Fisher Scientific, USA

Tools and Solutions to Construct iPSC-derived Disease Models for Drug Discovery

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 27

3D Modeling Using Organoids

Madeline Lancaster, Medical Research Council Laboratory of Molecular Biology, UK

Studying Human Brain Evolution in Cerebral Organoids

Guo-li Ming, University of Pennsylvania, USA
Brain-Region-Specific Organoids for Modeling Zika Virus Infection

Flora M. Vaccarino, Yale University School of Medicine, USA
Identifying FOXP1 as a Drug Target for Autism using Patient iPSC-Derived Brain Organoids

Hongjun Song, University of Pennsylvania, USA
Using 3D Organoids to Model Brain Dysfunction

Short Talk(s) Chosen from Abstracts

Workshop 1

Short Talks Chosen from Abstracts

Gene Editing of Stem Cells

Bruce R. Conklin, Gladstone Institutes and UCSF, USA

Precise Genome Engineering in Human iPSC Cells to Model and Treat Disease

Yadong Huang, Gladstone Institutes and University of California, San Francisco, USA

Alzheimer's Disease Modeling and Drug Screening Using Gene-Edited Human iPSCs

Alysson R. Muotri, University of California, San Diego, USA
Applications of Brain-Model Technology

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, MARCH 28

Organ Generation from iPSCs

Hiromitsu Nakauchi, Stanford University, USA

Making Human Organs from iPSCs with Large Animal Chimeras

Juan Carlos Izpisua-Belmonte, The Salk Institute for Biological Studies, USA

Chimeric Complementation for the Generation of Human Organs

Keiko Muguruma, RIKEN, Japan

Construction of iPSC-Derived Functional Brain Tissues for Investigation of Disease Mechanisms

Speaker to be Announced

Short Talk(s) Chosen from Abstracts

Workshop 2

Short Talks Chosen from Abstracts

Stem Cell Therapeutic Development

Ronald M. Evans, Howard Hughes Medical Institute, Salk Institute, USA

Therapeutic Development for Diabetes Using Personalized Insulin-Producing Cells

Ole Isacson, Pfizer, USA

iPSC-Derived Dopamine Neurons in a Non-Human Primate Model of Parkinson's Disease

Christine L. Mummery, Leiden University Medical Center, Netherlands

Cardiovascular Diseases and Drugs: Where Are we with hiPSC Models?

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, MARCH 29

Clinical Applications of Stem Cells

Lorenz Studer, Memorial Sloan Kettering Cancer Center, USA
Clinical Applications of Pluripotent Stem Cells

John A. Zaia, City of Hope Medical Center, USA
Stem Cell and Gene Therapy in Treating HIV

Misao Fujita, Kyoto University, Japan

The Ethical, Social and Legal Aspects of iPSC Applications

Deepak Srivastava, Gladstone Institute of Cardiovascular Disease and University of California, San Francisco, USA

Direct Cellular Reprogramming for Regenerative Medicine

Short Talk(s) Chosen from Abstracts

Workshop 3

Short Talks Chosen from Abstracts

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Manufacturing and Commercialization

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Thomas Novak, Cellular Dynamics International, USA
Human iPSC Creation and Biobanking

Joseph C. Wu, Stanford University School of Medicine, USA
Cardiac iPSCs for Precision Medicine and Clinical Trial in a Dish

Mahendra S. Rao, New York Stem Cell Foundation, USA
Consideration and Concerns in iPSC Manufacturing

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

FRIDAY, MARCH 30

Departure