

Program

MONDAY, NOVEMBER 25, 2019	
14:00-20:00	Arrival and Registration
17:00-18:30	Welcome reception
18:30-18:40	Welcome and opening remarks
Keynote lecture	Chair : Osamu Nureki, The University of Tokyo, Japan
18:40-19:30	Feng Zhang , MIT, USA Harnessing Nature's Diversity For Gene Editing and Beyond
19:30-21:30	Drinks
TUESDAY, NOVEMBER 26, 2019	
Session 1: Technology and Tools-1	Chair : Jin-Soo Kim, Seoul National University, Korea
9:00-9:15	Keiji Nishida , Kobe University, Japan Base editing, gene conversion and local diversification without DNA double strand break
9:15-9:45	Tomoji Mashimo , Osaka University, Japan Type I CRISPR-Cas3 mediated genome editing in human cells
9:45-10:15	Keiichiro Suzuki , Osaka University, Japan Development of in vivo genome editing technologies and application for genome-editing therapy
10:15-10:30	Kazuki Nakamae , Hiroshima University, Japan Analysis of genomic and epigenomic features affecting the efficacy of MMEJ-assisted knock-in using machiato
10:30-10:45	Coffee break and poster session
Session 2: Technology and Tools-2	
Chair : Keiji Nishida, Kobe University, Japan	
10:45-11:15	Baohui Chen , Zhejiang University, China Live Imaging of the Cellular Genome Using CRISPR Cas9 S systems
11:15-11:45	Jin-Soo Kim , Seoul National University, Korea Genome-wide target specificity of CRISPR RNA-guided base editors

11:45-12:15	Dave Savage , University of California Berkeley, USA High-throughput approaches for engineering CRISPR-Cas proteins
12:15-12:30	Osamu Nureki , The University of Tokyo, Japan Molecular mechanism of CRISPR and structure-based development of genome editing tool towards medical applications
12:30-12:45	Pranam Chatterjee , MIT Media Lab, USA Robust genome editing with broad targeting CAS9 variants
12:45-13:00	Nozomu Yachie , The University of Tokyo, Japan Recording cellular events in DNA
Poster Session	
13:00-14:00	Lunch and poster session
14:00-15:30	Poster Session and Coffee break
Session 3: Technology and Tools-3	
Chair : Caixia Gao, CAS, China	
15:30-16:00	Alexis Komor , University of California, USA Investigating the Chemical and Cellular Mechanisms of Base Editing
16:00-16:30	Benjamin Kleinstiver , Harvard Medical School, USA Expanding Genome Editing with Engineered CRISPR Enzymes
16:30-17:00	Knut Woltjen , CiRA, Japan Templated and template-free precision editing of human gene variants
17:00-17:15	Martin Pacesa , University of Zurich, Switzerland Structural basis SPCAS9 off-target binding
17:15-17:30	Yuichiro Miyaoka , Tokyo Metropolitan Institute of Medical Science, Japan Precise deletion mutagenesis by dual CAS12A DNA cleavage
17:30-18:15	Meet-the-editor and poster session
18:30-21:30	Banquet Kobe porpia hotel "Kairaku"

WEDNESDAY, NOVEMBER 27, 2019	
Keynote lecture	
Chair : Akihiko Kondo, Kobe University, Japan	
9:00-9:45	Virginijus Siksnys , Vilnius University, Lithuania Harnessing bacterial immune system for targeted genome engineering
Session 4: Regenerative Biology	
Chair : Tomoji Mashimo, Osaka University, Japan	
9:45-10:15	Hideyuki Okano , Keio University, Japan Non-human primate brain science using genome editing
10:15-10:45	Kathy Niakan , The Francis Crick Institute, UK Using genome editing and single cell approaches to study early lineage specification in human embryos
10:45-11:15	Prashant Mali , Jacobs School of Engineering, USA Improving genome interpretation via genome engineering toolsets: new approaches and new challenges
11:15-11:30	Coffee break and poster session
Session 5: Genome wide screening	
Chair : Steve Mao, Science	
11:30-12:00	Kosuke Yusa , Kyoto University, Japan Development and application of CRISPR-knockout screening
12:00-12:30	Hyongbum Kim , Yonsei University College of Medicine, Korea Deep learning-based prediction of CRISPR-Cpf1 and Cas9 activities
12:30-13:00	Wensheng Wei , Peking University, China Gene Editing: High-throughput Functional Genomics and Beyond
13:00-13:45	Lunch and poster session
Session 6: Animals and plants	
Chair : Markus Elsner, Nature Biotechnology	
13:45-14:15	Hui Yang , Institute of Neuroscience, China DNA base editing induces substantial DNA&RNA off-target mutations and eliminated by mutagenesis
14:15-14:45	Caixia Gao , CAS, China Base editing and Crop Improvement
14:45-15:00	Hiroaki Saika , National Agriculture and Food Research Organization, Japan Targeted deletion of rice retrotransposon
15:00-15:15	Lee Hickey , The University of Queensland

	Express editing for crop improvement
15:15-15:30	Kenta Sumiyama , RIKEN, Japan Triple-target CRISPR enabled production of complete bi-allelic double and triple gene knockouts at first generation
15:30-15:45	Coffee break and poster session
Session 7: Therapeutics	
	Chair : Nozomu Yachie, The University of Tokyo, Japan
15:45-16:15	Izuho Hatada , Gunma University, Japan Epigenome editing of animals
16:15-16:45	Jacob Corn , ETH Zurich, Switzerland Genome editing at work in human cells
16:45-17:15	Debojyoti Charkraborty , CSIR-Institute of Genomics and Integrative Biology, India Highly precise genome editing using an engineered orthogonal Cas9 protein
17:15-17:30	Yutaka Hanazono , Jichi Medical University, Japan Feasibility Study of Homologous Recombination-Based Genome-Editing Therapy in a Swine Model of X-SCID
17:30-18:15	Meet-the-editor and poster session
	Closing remarks