SUNDAY, FEBRUARY 13
Arrival and Registration

MONDAY, FEBRUARY 14
Welcome and Keynote Session (Joint)
David R. Liu, Broad Institute, HHMI, and Harvard University, USA
Base Editing and Prime Editing: Precision Gene Editing Without Double-Strand DNA Breaks
Alain Fischer, CHU Necker, France
Genetic Correction of Congenital Immune Deficiencies
Hematopoietic and Pluripotent Stem Cell Editing (Joint)
Luigi M. Naldini, San Raffaele Telethon Institute, Italy
HSC Editing
Paula M. Cannon, University of Southern California, Keck School of Medicine, USA
Gene Editing B Cells for Single-Chain Antibodies
Sjoukje J.C. van der Stegen, Fate Therapeutics, USA
iPS-Derived T Cells
Short Talks Chosen from Abstracts

TUESDAY, FEBRUARY 15
CARs and TCRs (Q6)
Gianpietro Dotti, UNC-Chapel Hill, USA
Improving CAR T Cell Therapy for Solid Tumors
Nicholas R. J. Gascoigne, National University of Singapore, Singapore
TCR/CR Signalling
Marcela V. Maus, Harvard Medical School, USA
New CAR Approaches
Thomas Blankenstein, Max Delbruck Center for Molecular Medicine, Germany
TCR-Transgenic T Cells
Short Talks Chosen from Abstracts
CRISPR-Cas Technology II (Q5)
Randall J. Platt, ETH Zurich, Switzerland
Transcriptional Recording
Speaker to be Announced
Anna Christina Obenauf, Research Institute of Molecular Pathology, Austria
Activatable Barcodes
Osamu Nureki, University of Tokyo, Japan
Development of Novel DNA and RNA Base Editors based on their Cryo-EM Structures towards Medical Applications
Short Talks Chosen from Abstracts
Immune Escape – Antigen Escape (Q6)
Aude G. Chapuis, Fred Hutchinson Cancer Research Center, USA
Mechanisms of Immune Escape to Trangenic TCR Therapy
Martin Pule, University College London, UK
Strategies to Prevent Antigen Escape in CAR T Cell Therapies
Anthony Rongvaux, Fred Hutchinson Cancer Research Center, USA
Modelling Human Tumors using the MISTRG Mice
Short Talks Chosen from Abstracts
Non-CRISPR Tech (Q5)
Samuel H. Sternberg, Columbia University, USA
CRISPR Transposases
Zoltan Ivics, Paul Ehrlich Institute, Germany
DNA Transposases
Cecilia Cotta-Ramusino, Tessera Therapeutics, USA
Engineering Mobile Genetic Elements
Short Talks Chosen from Abstracts
Short Talks Chosen from Abstracts

WEDNESDAY, FEBRUARY 16
Keynote Address (Q6)
Miriam Merad, Mount Sinai School of Medicine, USA
Overcoming the Tumor Microenvironment

* Session Chair † Invited but not yet accepted     Program current as of May 7, 2021. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.
KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

Emerging Cellular Therapies (Q6)
Scientific Organizers: Michel Sadelain, Aude G. Chapuis and Justin Eyquem
Supported by the Directors' Fund

Precision Genome Engineering (Q5)
Scientific Organizers: Jacob E. Corn, Kathy K. Niakan and Cecilia Cotta-Ramusino
February 13-17, 2022 • Fairmont Chateau Whistler • Whistler, BC, Canada
Supported by the Directors' Fund

Scholarship Deadline: November 2, 2021 / Abstract Deadline: November 9, 2021 / Discounted Registration Deadline: December 15, 2021

For the most up-to-date details, visit https://www.keystonesymposia.org.
T Cell Exhaustion (Q6)
Andrea Schietinger, Memorial Sloan Kettering Cancer Center, USA
Molecular and Epigenetic Mechanisms of Tumor-Specific T Cell Recognition and Exhaustion
Dirk Hans Busch, Technical University Munich, Germany
Improving Antigen-Specific Immunotherapy
Axel Kallies, University of Melbourne, Australia
Molecular Control of T-Cell Differentiation
Short Talks Chosen from Abstracts

DNA Repair (Q5)
Maria Jasin, Memorial Sloan Kettering Cancer Center, USA
CRISPR DNA Damage Response
Jacob E. Corn, ETH Zürich, Switzerland
CRISPR DNA Repair
Britt S. Adamson, Princeton University, USA
Massively Parallel Profiling of Cas Pathways
Taekjip Ha, Johns Hopkins University, USA
CRISPR Biophysics
Short Talks Chosen from Abstracts

Epigenetics/Metabolism Re-Wiring (Q6)
Anjana Rao, La Jolla Institute for Immunology, USA
Improving T Cell Antitumor Functions through Epigenetic Rewiring
Ben A. Youngblood, St. Jude Children's Research Hospital, USA
T Cell Epigenetic Reprograming
Speaker to be Announced
Short Talks Chosen from Abstracts

CRISPR-Cas Biology (Q5)
Joseph Bondy-Denomy, University of California, San Francisco, USA
Anti-CRISPRs
Emmanuelle Charpentier†, Max Planck Institute for Infection Biology, Germany
New CRISPR Systems
Speaker to be Announced
Short Talks Chosen from Abstracts

Poster Session 3

THURSDAY, FEBRUARY 17

Other than Conventional T (Q6)
Jurgen Kuball, University Medical Center, Netherlands
GD T-Cells
Katy Rezvani, University of Texas MD Anderson Cancer Center, USA
NK Cells
Martino Introna†, USS Center of Cell Therapy, Italy
NKT

Emma Morris, University College London, UK
Regulatory T Cells
Short Talks Chosen from Abstracts

Apps in Basic Biology and Therapy (Q5)
Speaker to be Announced
Laura Sepp-Lorenzino, Intellia Therapeutics, USA
CRISPR Therapies
Speaker to be Announced
Fernando D. Camargo, Boston Children's Hospital, USA
Lineage Tracing with RNA/DNA
Short Talks Chosen from Abstracts

Target Discovery (Q6)
Sebastian Amigorena, Institut Curie, France
E-Antigens
Stephen J. Elledge, Harvard Medical School, USA
T-Scan
Catherine J. Wu, Dana-Farber Cancer Institute, USA
Neo-Antigen
Short Talks Chosen from Abstracts

Apps in Plants and Animals (Q5)
Caixia Gao, Chinese Academy of Sciences, China
Engineering Plants
Jon Oatley, Washington State University, USA
Editing Animals
Steven E. Jacobsen, University of California, Los Angeles, USA
Epigenome Editing Plants
Short Talks Chosen from Abstracts

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q6)
Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q5)

FRIDAY, FEBRUARY 18

Departure

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