TUESDAY, APRIL 9
Arrival and Registration

WEDNESDAY, APRIL 10
Welcome and Keynote Address (Z1)
Yasmine Belkaid, NIAID, National Institutes of Health, USA
Microbial Control of Tissue Threshold of Activation

Systems Immunology: Signatures and Mechanisms (Z2)
Ronald N. Germain, NIAID, National Institutes of Health, USA
Of Space and Time in Immune Response Orchestration
Mark M. Davis, Stanford University School of Medicine, Howard Hughes, USA
Of Human, Mouse, and Organoid Immune Systems
John Tsang, Yale University School of Medicine, USA
The Systems Immunology of Immune Set Points
Aleksandra Walczak, École Normale Supérieure, France
The Information Content of Immune Repertoires

Short Talks Chosen from Abstracts
Sensing of Microbial Friends and Enemies (Z1)
Gregory M. Barton, University of California, Berkeley, USA
Nucleic Acid Sensing Toll-Like Receptors
Ramnik Xavier, Massachusetts General Hospital, USA
Sensing of Microbiome Derived Lipids and Metabolites
Andrea Ablasser, Ecole Polytechnique Fédérale de Lausanne, Switzerland
Molecular Rules of DNA Sensing

Short Talks Chosen from Abstracts
Workshop 1: Artificial Immune Systems: Organoids and Model Systems for Systems and Engineering Immunology – Advances and Challenges (Z2)
Short Talks Chosen from Abstracts

Workshop 1 (Z1)
Short Talks Chosen from Abstracts

Workshop 2: Industry Perspectives on Systems and Engineering Immunology – Advances and Challenges (Z2)
Short Talks Chosen from Abstracts

Programming and Engineering Immune Cells: Understand to Build and Build to Understand (Z2)
Alex Marson, Gladstone Institutes, University of California, San Francisco, USA
Genomics Programming of Human T Cells
Speaker to be Announced

THURSDAY, APRIL 11
Immunoreceptors: Specificities, Interactions, and Engineering (Z2)
Frederick A. Matsen IV, Fred Hutchinson Cancer Research Center, USA
Antibody Phylogenetics and Evolutionary Dynamics
Armita Nourmohammad, University of Washington, USA
Learning the Shape of the Immune and Protein Universe
Speaker to be Announced

Short Talks Chosen from Abstracts

Career Roundtable (Joint)

Immunoeengineering and Drug Development (Z2)
Aaron M. Ring, Fred Hutchinson Cancer Center, USA
Immune Molecular Engineering
Christoph Bock, CeMM and Medical University of Vienna, Austria
Immune Cell Engineering and “Structural Immunity”
Speaker to be Announced

Short Talks Chosen from Abstracts

Innate Immune Protectors and Drivers of Disease (Z1)
Virginia Pascual, Cornell University, USA
Talk Title to be Announced

Tracey Lodie, Quell Therapeutics, USA
Regulatory T Cell Engineering
Short Talks Chosen from Abstracts

Innate Immunity 2.0: Epigenetics (Z1)
Kate L. Jeffrey, Moderna and Harvard Medical School, USA
Chromatin Readers and Inflammation
Steven Z. Josefowicz, Weill Cornell Medical College, USA
Signaling to Chromatin for Rapid Innate Immunity
Kate A. Fitzgerald, University of Massachusetts Medical School, USA
Long Non-Coding RNAs and Inflammation
Theresa Alenghat, Cincinnati Children's Hospital, USA
Microbiome Regulation of the Epigenome
Short Talks Chosen from Abstracts

Poster Session 1

For the most up-to-date details, visit https://www.keystonesymposia.org.
KEYSTONE SYMPOSIA
on Molecular and Cellular Biology

Systems and Engineering Immunology: Advancing Immunological Insights in Health and Disease (Z2)
Scientific Organizers: John Tsang, Shannon J. Turley and Alex Marson
Supported by the Directors’ Fund

Innate Immunity Across the Molecular, Cellular, Tissue and Therapeutic (Z1)
Scientific Organizers: Kate L. Jeffrey, Ramnik Xavier and Xu Zhou
April 9-12, 2024 • Fairmont Banff Springs • Banff, AB, Canada
Sponsored by Sensei Biotherapeutics

Scholarship Deadline: January 18, 2024 / Abstract Deadline: January 18, 2024 / Discounted Registration Deadline: February 8, 2024

Bryan D. Bryson, Massachusetts Institute of Technology, USA
Unraveling TB Granuloma Phagocyte Heterogeneity
Kara Lassen, Roche, Switzerland
Fibroblasts in Chronic Inflammatory Diseases
Short Talks Chosen from Abstracts

Poster Session 2

FRIDAY, APRIL 12

The Emerging, Unexpected and New Frontiers (Joint)
Speaker to be Announced
Sarah Teichmann, Wellcome Sanger Institute, UK
Cell Atlas Mapping of the Immune System Across Organs
Shannon J. Turley, Genentech, Inc., USA
Melding Technology and Immunology in Drug Development
Nicolas Chevrier, University of Chicago, USA
Decoding the Body Language of Immunity
Short Talks Chosen from Abstracts

Workshop 3: Bridging Top-Down and Bottom-Up Systems Immunology (Z2)
Short Talks Chosen from Abstracts

Workshop 2 (Z1)
Short Talks Chosen from Abstracts

Workshop 4: Engineer to Understand and Understand to Engineer (Z2)
Short Talks Chosen from Abstracts

Tissue Systems Immunology and Dynamics (Z2)
Karin Pelka, Gladstone Institutes and University of California, San Francisco, USA
Spatially Organized Immune Hubs in Human Tumors
Gabriel D. Victora, Rockefeller University, USA
Multicellular Dynamics in Germinal Center Responses
Leïla Perié, Institut Curie, France
System View of Hematopoiesis
Short Talks Chosen from Abstracts

Therapeutics - Leveraging and Avoiding Innate Immunity (Z1)
Joseph R. Arron, Sonoma Biotherapeutics, USA
Drug Discovery in the Age of Human Genetics
Herbert (Skip) W. Virgin, Washington University School of Medicine, USA
Cellular Rejuvenation
Eicke Latz, University of Bonn, Germany
Drugging Innate Immunity

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)
SATURDAY, APRIL 13
Departure

* Session Chair † Invited but not yet accepted Program current as of January 14, 2024. Meal formats are based on meeting venue.
For the most up-to-date details, visit https://www.keystonesymposia.org.