Thursday, May 2nd - Friday May 3rd 2019, Berg Hall, Li Ka Shing Center, Stanford

Thursday, May 2, 2019

07:30–08:30 BREAKFAST

08:30–08:45 Welcome & Opening Remarks
Lynda Stuart, Bill and Melinda Gates Foundation
Mark Davis, Bali Pulendran, Catherine Blish, Purvesh Khatri, Stanford

Session Chair: TBA

08:50–09:15 Prospects for a T-Cell Mediated Functional Cure of HIV Infection
Bruce Walker, Ragon Institute of MGH, MIT and Harvard

09:20–09:45 Establishing the Diet-Microbiome-Immune Axis in Humans
Justin Sonnenburg, Stanford

09:50–10:15 Chemical Technologies for Infectious Disease Diagnostics
Carolyn Bertozzi, Stanford

10:20–10:45 Multi-Scale Modeling to Study Complex Diseases
Olivier Gevaert, Stanford

10:50–11:05 COFFEE BREAK

11:05–11:30 Multiomics Analysis of Term and Preterm Human Pregnancy
Nima Aghaeepour, Stanford

11:35–12:00 Shaping of Human Immune Systems by Environmental Factors Early in Life
Petter Brodin, Karolinska Institute

12:05–12:30 Longitudinal Multi-omic Profiling for Thousands of People
Nathan Price, Institute for Systems Biology, Seattle

12:30–01:30 LUNCH & POSTER VIEWING

Session Chair: TBA

01:30–01:55 Big Data and Health
Mike Snyder, Stanford

02:00–02:25 HiFi Molecular Transmission via Crisscross Cooperativity
William Shih, Harvard
02:30–02:55  X. Shirley Liu, Dana-Farber Cancer Institute
Hidden Immunology Signals in Tumor RNA-seq

03:00–03:15  COFFEE BREAK & POSTER VIEWING

03:15–03:40  Crystal Mackall, Stanford
Engineering T Cells for Cancer Therapy

03:45–04:10  Evan Newell, Fred Hutchinson Cancer Research Center
Decomposing Disease Associated T cell Responses Using Mass Cytometry

04:15–04:40  Ami Bhatt, Stanford
Genomic Approaches to Decipher Microbial Contributions to Health and Disease

04:45–05:05  Somuya Raychaudhari, Harvard Broad Institute
Defining the Architecture of Rheumatoid Arthritis at the Single Cell Level

05:10–06:30  RECEPTION AND POSTER SESSION

Friday, May 3, 2019

08:00–08:30  BREAKFAST
Session Chair: TBA

08:30–08:55  Rhiju Das, Stanford
Inexpensive Diagnostics for Ratiometric Gene Signatures through Designer Riboswitches

09:00–09:25  Sarah Fortune
Single Cell RNAseq Analysis of TB Granulomas: Defining Therapeutic Challenges

09:30–09:55  Yuch-hsiu Chien
Title TBA

10:00–10:25  H. Tom Soh, Stanford
Multiplexed Protein Measurements with High Sensitivity and Resolution

10:25–10:40  COFFEE BREAK & POSTER VIEWING

10:40–11:05  Galit Alter, Ragon Institute of MGH, MIT and Harvard
Systems Serology to Define Correlates of Immunity

11:10–11:35  Nir Yosef, UC Berkley
Metabolic Modeling with Single-Cell RNA-Seq Reveals Actionable Targets in Autoimmunity

11:40–12:05  Elizabeth Egan, Stanford
New Approaches to Discover Host Erythrocyte Factors for Malaria

12:15–01:15  LUNCH

Session Chair: TBA

01:15–01:40  Andrea Radtke, NIH
Advanced Optical Imaging Approaches to Understand Human Immunity in a Tissue Context
01:45–02:10  Garry Nolan  
**Pathology from the Molecular Scale on Up**

02:15–2:40  William Greenleaf  
**Title TBA**

02:45–3:10  Manu Prakash, Stanford  
**Title TBA**

03:15–03:30  COFFEE BREAK

03:30–03:55  Kari Nadeau, Stanford  
**Studying Immunological Mechanisms to Try to End Food Allergy**

04:00–04:25  Rosa Bacchetta, Stanford  
**New Approaches to Dissect Immune Dysregulation in Children with Genetic Immune Diseases**

04:30–04:55  Steven Deeks, UCSF  
**Towards and HIV Cure: Untangling the Immunology of HIV Persistence during Antiretroviral Therapy**

05:00–05:15  Closing Remarks, Mark Davis, Stanford