ITI Human Immune Monitoring Technology and Bioinformatics Conference
Sponsored by the Center for Human Systems Immunology (PD: Mark M. Davis)
Organizing Committee: Catherine Blish, Purvesh Khatri & Bali Pulendran

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

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

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  Alexander Drakesmith, University of Oxford, MRC Weatherall Institute
Iron powers adaptive immunity: implications for vaccinations

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

09:30–09:55  Yueh-hsiu Chien, Stanford
A Multi-Cohort Study of the Immune Factors Associated with M. Tuberculosis Infection Outcomes

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  Rhiju Das, Stanford
Inexpensive Diagnostics for Ratiometric Gene Signatures through Designer Riboswitches

12:10–13:10  LUNCH
Session Chair: TBA

01:10–01:35 Andrea Radtke, NIH
Advanced Optical Imaging Approaches to Understand Human Immunity in a Tissue Context

01:40–02:05 Garry Nolan, Stanford
Pathology from the Molecular Scale on Up

02:10–02:35 William Greenleaf, Stanford
Integrative, multiomic, single-cell dissection of Mixed-Phenotype Acute Leukemia.

02:40–03:05 Manu Prakash, Stanford
Title TBA

03:10–03:25 COFFEE BREAK

03:25–03:50 Elizabeth Egan, Stanford
New Approaches to Discover Host Erythrocyte Factors for Malaria

03:55–04:20 Kari Nadeau, Stanford
Studying Immunological Mechanisms to Try to End Food Allergy

04:25–04:50 Rosa Bacchetta, Stanford
New Approaches to Dissect Immune Dysregulation in Children with Genetic Immune Diseases

04:55–05:20 Steven Deeks, UCSF
Towards and HIV Cure: Untangling the Immunology of HIV Persistence during Antiretroviral Therapy

05:25–05:30 Closing Remarks, Mark Davis, Stanford