



Systems Immunology in Aging and Complex Diseases
Precision Vaccinology
June 27 - 28, 2024
Farmington, CT

Thursday, June 27th

- 7:30am *Registration*
- 8:50 – 09.00 am **Opening Remarks-** Duygu Ucar, Ph.D., *The Jackson Laboratory for Genomic Medicine*

Session 1: B cell Biology

Session Moderator: Duygu Ucar, Ph.D., *The Jackson Laboratory for Genomic Medicine*

- 9:00 – 9:40 am **Immune Signatures of Vaccination and Infection**
Steven Kleinstein, Ph.D., *Yale School of Medicine*
- 9:40 – 10:20 am **Dissecting the influenza-specific B cell response in elderly vaccinees that seroconvert or fail to seroconvert by HAI**
Sean Nelson, Ph.D., *Weill Cornell Medical College*
- 10:20 – 10:45 am **Attendee Short Talk: CD96 is an inhibitory receptor on B cells which is upregulated with age and anergy**
Cole Batty, Ph.D., *Dana Farber Cancer Institute*
- 10:45 – 11:20 am *Coffee Break*
- 11:20 – 12:20 pm **Keynote Lecture: SARS-CoV-2 evasion of innate immunity**
Adolfo García-Sastre, Ph.D., *Mount Sinai*
- 12:20 – 1:20 pm *Lunch Break*

Session 2: Advances in Technology

Session Moderator: Djamel Nehar-Belaid, Ph.D., *The Jackson Laboratory for Genomic Medicine*

- 1:20 – 2:00 pm **Base-pair resolution mapping of regulatory elements**
Martin Aryee, Ph.D., *Broad Institute (virtual presentation)*
- 2:00 – 2:40 pm **Recent Advances in Plasma Proteomics: More from Less, and that Much Faster (and Cheaper)**
Hanno Steen, Ph.D., *Harvard Medical School*

2:40 – 3:20 pm	Immune cell interactions and dynamics in tissues Sophia Liu, Ph.D., <i>Ragon Institute of MGH, MIT and Harvard</i>
3:20 – 3:45 pm	Attendee Short Talk: Elucidating Immunotypes of Response to mRNA Vaccines to Optimize and Accelerate Candidate Development Robert Amezcua, Ph.D., <i>Sanofi</i>
3:45 – 4:00 pm	<i>Group Photo</i>
4:00 – 6:00 pm	Social Hour / Poster Session

Friday, June 28th

Session 3: NK/T Cell Biology

Session Moderator: Sathya Ravi, Ph.D., *The Jackson Laboratory for Genomic Medicine*

9:00 – 9:40 am	Natural Killer Cell Responses During Acute Influenza A Virus Infection Are Suppressed Through Intrinsic PD-L1-mediated Modulation of TRAIL Silke Paust, Ph.D., <i>The Jackson Laboratory for Genomic Medicine</i>
9:40 – 10:20 am	Reprogramming Human T Cell Subsets Against Cancer and Aging Derya Unutmaz, M.D., <i>The Jackson Laboratory for Genomic Medicine</i>
10:20 – 10:45 am	Dictionary of immune responses to cytokines at single-cell resolution Ang Cui, Ph.D., <i>Harvard University</i>
10:45 – 11:20 am	<i>Coffee Break</i>
11:20 – 12:20 pm	Keynote Lecture: Polyclonal profiles across the ages Galit Alter, Ph.D., <i>Moderna</i>
12:20 – 1:20 pm	<i>Lunch Break</i>

Session 4: Single Cell immunology

Session Moderator: Asa Thibodeau, PhD., *The Jackson Laboratory for Genomic Medicine*

1:20 – 2:00 pm	Single-Cell Analysis of Early and Memory Responses to Vaccines in Human Tissues Peter Sims, Ph.D., <i>Columbia University</i>
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- 2:00 – 2:40 pm **Sex differences in human immune aging and vaccine responses**
Duygu Ucar, Ph.D., *The Jackson Laboratory for Genomic Medicine*
- 2:40 – 3:20 pm **Systems Immunology to study immune changes throughout human lifespan**
Djamel Nehar-Belaid, Ph.D., *The Jackson Laboratory for Genomic Medicine*
- 3:20 – 3:45 pm **A single cell transcriptome atlas of fluzone responses in healthy young and older adults**
Sathya Ravi, Ph.D., *The Jackson Laboratory for Genomic Medicine*
- 3:45 – 4:45 pm **Attendee Short Talk: Caspase-11 drives macrophage hyperinflammation in models of Polg-related mitochondrial disease**
Jordyn Van Portfliet, B.S., *The Jackson Laboratory*
- 4:45 pm **Closing remarks**