



Systems Immunology in Aging and Complex Diseases
The Immune Resilience of Aging
September 22 - 23, 2022

Thursday, September 22nd

- 7:30am **Registration and On-Site Covid Testing**
- 8:40am **Opening Remarks**
George Kuchel, M.D., *UConn Center on Aging* & Duygu Ucar, Ph.D., *The Jackson Laboratory for Genomic Medicine*

Session 1: HSPCs/trained immunity

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

- 9:00 am **Hematopoietic stem cell aging – intrinsic and extrinsic mechanisms**
Jennifer Trowbridge, Ph.D., *The Jackson Laboratory* (Remote Presentation)
- 9:40 am **Epigenetic memory of COVID-19 in innate immune cells and the progenitors**
Steve Josefowicz, Ph.D., *Weill Cornell Medical School*
- 10:20am **Aging epigenetic landscapes in HSCs**
Isabel Beerman, Ph.D., *National Institute on Aging*
- 11.00am Coffee Break
- 11:30am **Keynote Lecture** – Vishwa Deep Dixit, D.V.M., Ph.D., *Yale School of Medicine*
- 12:30pm Lunch Break

Session 2: Interventions/inflammation

Session Moderator: Bérénice Benayoun, Ph.D., *University of Southern California*

- 1:00pm **Monocytes and microglia: heterogeneity, aging and rejuvenation**
Helen Goodridge, Ph.D., *Cedars-Sinai Medical Center*
- 1:40pm Saul Villeda, Ph.D., *University of California, San Francisco*
- 2:20pm Coffee break

Session 3: Advances in technology

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

- 3:00pm **Highly multimodal measurements of single cells**
Eleni Mimitou, Ph.D., *Immurai (Remote Presentation)*
- 3:40pm **Single-cell Epigenomics: Gene regulation at unprecedented resolution**
Jason Buenrostro, Ph.D., *Harvard University (Remote Presentation)*
- 4:20pm **Strategies of Multi-omic Genomic Technologies in Mapping 3D Epigenomes**
Chia-Lin Wei, Ph.D., *The Jackson Laboratory for Genomic Medicine*
- 5:00pm **Attendee Short Talk: Age as a Covariable with IGHV1-69/D Polymorphism Determine Influenza Vaccine Responsiveness**
Hanzhong Ke, *Dana-Farber Cancer Institute*
- 5:15pm **Attendee Short Talk: Immune resilience in antibody responses to the initial two-dose series and the first booster dose of SARS-CoV-2 mRNA vaccine in community-dwelling older adults over 75 years of age**
Sean Leng, *Johns Hopkins University*
- 5:30pm Cocktail hour/poster session
- 7:00pm Invited speakers' dinner

Friday, September 23rd

Session 4: Immune diseases

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

- 9:00am **Dysregulated alternative splicing: a new (and druggable) hallmark of ageing**
Lorna Harries, Ph.D., *University of Exeter College of Medicine and Health (Remote Presentation)*
- 9:40am **Age-dependent NK cell signatures of protection against influenza**
Galit Alter, Ph.D., *Harvard Medical School*
- 10:20am **Cytokine receptors and T cells in health and disease**
Insoo Kang, M.D., *Yale School of Medicine*
- 11:00am Coffee Break
- 11:30am **Keynote Lecture – Unusual Suspects in SLE Pathogenesis**
Virginia Pascual, M.D., *Weill Cornell (Remote Presentation)*
- 12:30pm Lunch Break

Session 5: Vaccine responses

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

- 1:00pm **Sex differences in immune aging and vaccine responses**
Duygu Ucar, Ph.D., *The Jackson Laboratory for Genomic Medicine*
- 1:40pm **Integrated Systems Approaches to Define Mechanisms of Vaccine Success**
Rafick Sékaly, Ph.D., *Emory University School of Medicine*
- 2:20pm **Can the use of combinatory adjuvants restore age-dependent vaccine unresponsiveness?**
Sara Lustingman, Ph.D., *New York Blood Center*
- 3:00pm Coffee Break

Session 6: Immune aging signatures

Session Moderator: Laura Haynes, Ph.D., *UConn Health*

- 3:30pm **Immune aging in mice and humans**
Denis Mogilenko, Ph.D., *Washington University School of Medicine in St. Louis*
- 4:10pm **Endogenous DNA damage as a driver of inflammation and aging**
Matt Yousefzadeh, Ph.D., *University of Minnesota*
- 4:50pm **Sex-specific molecular and functional remodeling of aging murine macrophages**
Bérénice Benayoun, Ph.D., *University of Southern California*
- 5:30pm **Attendee Short Talk: The Effect of Metformin Treatment on Influenza Vaccine Responses in Healthy Nondiabetic Older Adults**
Jenna Bartley, *UConn Health Center*
- 5:45pm Closing remarks/Group photo