KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

HIV Vaccines (X7)

Scientific Organizers: Nicole A. Doria-Rose, Thumbi Ndung'u and Gunilla Karlsson Hedestam
Supported by the Directors' Fund

Functional Cures and the Eradication of HIV (X8)

Scientific Organizers: Lynn Morris, Melanie M. Ott and Kevin V. Morris March 24-28, 2019 • Fairmont Chateau Whistler • Whistler, British Columbia, Canada

Sponsored by Gilead Sciences, Inc.

Global Health Travel Award Deadline: October 23, 2018 / Abstract & Scholarship Deadline: November 28, 2018 / Abstract Deadline: December 18, 2018 / Discounted Registration Deadline: January 24, 2019

SUNDAY, MARCH 24

Arrival and Registration

MONDAY, MARCH 25

Welcome and Keynote Session (Joint)

John R. Mascola, NIAID, National Institutes of Health, USA *Progress in HIV Vaccines*

Robert F. Siliciano, Johns Hopkins University School of Medicine, USA

New Insights into the Extent and Dynamics of the Latent Reservoir

Antibodies for Prevention, Treatment and Cure (Joint)

David D. Ho, Aaron Diamond AIDS Research Center, USA *Engineering Antibodies to Combat HIV/AIDS*

Florian Klein, University of Cologne, Germany Broadly Neutralizing Antibodies for HIV-1 Immunotherapy

Short Talk(s) Chosen from Abstracts

Workshop 1 (X7)

Short Talks Chosen from Abstracts

Workshop 1 (X8)

Short Talks Chosen from Abstracts

Clinical Trials for Prevention: Vaccines and Antibodies (X7)

Glenda Gray, South African Medical Research Council, South Africa *ALVAC-gp120 for Clade C in South Africa*

Lawrence Corey, Fred Hutchinson Cancer Research Center, USA *Validating Neutralization as a Mechanistic Surrogate of Protection in Passive Antibody Studies*

Beatrice Ondondo, Cardiff Metropolitan University, UK *T-Cell Vaccine Trials*

Short Talk Chosen from Abstracts

Development of the Innate Cell and Antibody Responses to HIV (X8)

Galit Alter, Ragon Institute of MGH, MIT and Harvard, USA Harvesting Innate Immune Cell Function through Vaccination to Control Viral Replication

Michel C. Nussenzweig, HHMI/Rockefeller University, USA *Targeting B Lymphocytes to Control HIV-1*

Lynn Morris, National Institute for Communicable Diseases, South Africa

Neutralizing Antibodies, Vaccines and Long-Term Control of HIV Infection

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 26

New Technologies for Studying and Inducing B Cells (X7)

Gunilla B. Karlsson Hedestam, Karolinska Institutet, Sweden *Antibody Germline Genes and Impact on Vaccine Responses*

Speaker to be Announced

Adrian B. McDermott, National Institutes of Health, USA Characterization of Antigen Specific Memory B Cells Following Vaccination

Colin Havenar-Daughton, La Jolla Institute of Allergy and Immunology, USA

Germinal Center Reactions in Vaccination

Short Talk(s) Chosen from Abstracts

Mechanisms of Viral Expression and Control of Host Cell Function (X8)

Saba Valadkhan, Case Western Reserve University, USA Long Non-Coding RNAs Involved in HIV Latency and Reactivation

Eric M. Verdin, University of California, San Francisco, USA CRISPR Based Characterizing of Latency-Associated Pathways

Jonathan Karn, Case Western Reserve University, USA Signaling Pathways Controlling HIV Reactivation from Latency

Ivan D'Orso, UT Southwestern Medical Center, USA *Transcriptional Regulatory Mechanisms Shaping HIV Proviral Fate*

Short Talk(s) Chosen from Abstracts

Antibody-Virus Coevolution: Vaccines and Lessons from Infection (X7)

Nicole A. Doria-Rose, NIAID, National Institutes of Health, USA *Broadly Neutralizing Antibodies: Lessons from Natural Infection*

Mattia Bonsignori, Duke University Medical Center, USA Multiple Maturation Pathways of the VRC01 Lineage Leading to Neutralization Breadth from the Fully Reverted Unmutated Common Ancestor

Elise Landais, International AIDS Vaccine Initiative, USA *Novel Antibody Lineages*

Short Talk Chosen from Abstracts

Mechanism and Modulation of Latency (X8)

Melanie M. Ott, University of California, San Francisco, USA *Transcriptional Control of Viral Latency*

Monsef Benkirane, Institut de Genetique Humaine, France *Biomarkers of Latency*

Leor S. Weinberger, University of California, San Francisco, USA *Modeling of HIV Latency and Reactivation*

Short Talk Chosen from Abstracts

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Poster Session 2

WEDNESDAY, MARCH 27

Therapeutic Vaccines and Cure Strategies (Joint)

Thumbi Ndung'u, University of KwaZulu-Natal, South Africa Treatment in Acute Infection: Lessons from the FRESH Cohort

Jintanat Ananworanich, US Military HIV Research Program, USA Therapeutic Vaccines after Early ART: Impact on Viral Load Control Post Interruption

Beatriz Mothe, IrsiCaixa AIDS Research Institute-HIVACAT, Spain *Therapeutic Vaccines after Early ART: Impact on Reservoir*

Warner Craig Greene, Gladstone Institute of Virology and Immunology, USA

Reversing HIV Latency by Activating AKT/mTOR Signaling

Short Talk(s) Chosen from Abstracts

T Cells in HIV Vaccination (X7)

Christian Brander, Institut de Recerca de la Sida, IrsiCaixa, Spain *Vaccine-Elicited T Cells in Clinical Trials*

Jonah B. Sacha, Oregon Health & Science University, USA Unconventional T Cells: Potential for Induction by Vaccination

David B. Masopust, University of Minnesota, USA *Tissue Resident T Cells*

Short Talk Chosen from Abstracts

Experimental Molecular Approaches to Targeting Viral Reservoirs (X8)

Romas Geleziunas, Gilead Sciences, Inc., USA Attacking Latent Reservoirs

Priti Kumar, Yale School of Medicine, USA In vivo Gene Therapy and Nano-medicine to Treat HIV

Susana T. Valente, Scripps Florida, USA Silencing the HIV-1 Reservoir

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, MARCH 28

Env Immunogen Design and Evaluation (X7)

Richard T. Wyatt, IAVI Neutralizing Antibody Center at The Scripps Research Institute, USA

Modified HIV Trimers to Elicit Cross-Neutralizing Responses

Tongqing Zhou, NIAID, National Institutes of Health, USA Opening and Closing Targets for Broadly Neutralizing Antibodies

Karin Loré, Karolinska Institutet, Sweden

In vivo Fate of Env and Early Responses upon Immunization

Derek T. O'Hagan, GSK Vaccines, USA

Designing and Building the Next Generation of Vaccine Adjuvants

Short Talk(s) Chosen from Abstracts

Targeting and Eradication of HIV (X8)

David M. Margolis, University of North Carolina at Chapel Hill, USA Chemotherapuetic Control of Latency

Sharon R. Lewin, University of Melbourne, Australia New Approaches to Eradicating HIV: Transitioning Experimental Therapeutics into Clinical Trials

Deborah Persaud, Johns Hopkins Hospital, USA *Latency and Viral Infection in Pediatrics*

Lucy Dorrell, University of Oxford, UK

Novel Engineered Immune-Mobilizing T Cell Receptors-Based Drugs ('ImmTAVs') to Clear HIV Infection

Short Talk Chosen from Abstracts

Workshop 2 (X7)

Short Talks Chosen from Abstracts

Workshop 2 (X8)

Short Talks Chosen from Abstracts

From the Lab to the Clinic: A Reality Check for Investigators (X7)

Mark Connors, NIAID, National Institutes of Health, USA Getting a Product to a Clinical Trial: The View from the Lab Bench

Hanneke Schuitemaker, Janssen Vaccines & Prevention B.V., Netherlands

Getting a Product to a Clinical Trial: The View from Industry

Speaker to be Announced

Protect and Kill Strategies to a Functional Cure (X8)

Paula M. Cannon, University of Southern California, Keck School of Medicine, USA

Genome Engineering Strategies to Generate HIV Resistant Cells

Scott G. Kitchen, University of California, Los Angeles AIDS Institute, USA

Engineering Long-Term HIV-Specific Immunity through Chimeric Antigen Receptors and Stem Cells

Kevin V. Morris, Center for Gene Therapy, City of Hope, USA *Cell Targeted Gene Modification and the Generation of HIV Targeted T-Cells*

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X7)

Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (X8)

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FRIDAY, MARCH 29 Departure