

HIV, Viruses and their Hosts: A Systems Biology Approach

Bloomberg Lecture Hall
Institute for Advanced Study, Princeton, NJ

Hosted by:

THE SIMONS CENTER FOR SYSTEMS BIOLOGY
Institute for Advanced Study
and the
GLOBAL HIV VACCINE ENTERPRISE

SYMPOSIUM SCHEDULE

Monday, October 6, 2008

8:15 a.m. - 8:50 a.m. COFFEE AVAILABLE - Bloomberg Hall Biology Atrium

8:50 a.m. - 9:00 a.m. Welcoming Remarks
Arnold J. Levine, Institute for Advanced Study
Alan Bernstein, Global HIV Vaccine Enterprise

I. Innate Immunity

9:00 a.m. - 9:40 a.m. Marcus Altfeld, Massachusetts General Hospital &
Harvard Medical School
Innate Immune Function in Acute and Chronic HIV-1 Infection

9:40 a.m. - 10:20 a.m. Jean-Laurent Casanova, The Rockefeller University &
Howard Hughes Medical Institute
A Genetic Dissection of Immunity to Infection in Natura

10:20 a.m. - 10:40 a.m. COFFEE BREAK - Bloomberg Hall Biology Atrium

10:40 a.m. - 11:20 a.m. Mary Carrington, National Cancer Institute
The Influence of KIR and HLA on HIV Disease

11:20 a.m. - 12:00 p.m. Bali Pulendran, Emory Vaccine Center, Emory University
*Systems Biology Approaches Predict Immunogenicity of the
Yellow Fever Vaccine in Humans*

II. Systems Biology

12:00 p.m. - 12:40 p.m. Roy Kishony, Harvard Medical School
The Impact of Drug Interactions on Evolution of Resistance

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Monday, October 6, 2008 (continued)

- 12:40 p.m. - 2:00 p.m.** **LUNCH** - Available in Institute Dining Hall
- 2:00 p.m. - 2:40 p.m.** **Harlan Robins, Fred Hutchinson Cancer Research Center**
*Sequencing the T cell VDJome: Comprehensive Assessment of
the TCR Diversity and Frequency*
- III. Mathematical Ecology & Infectious Diseases*
- 2:40 p.m. - 3:20 p.m.** **Eddie Holmes, The Pennsylvania State University**
The Comparative Genomics of RNA Viruses
- 3:20 p.m. - 4:00 p.m.** **Raúl Rabadán, Columbia University College of Physicians
and Surgeons**
The Evolution of Influenza
- 4:00 p.m. - 4:15 p.m.** **AFTERNOON TEA BREAK** - Fuld Hall Common Room
- 4:15 p.m. - 4:55 p.m.** **George Dimopoulos, Johns Hopkins School of Public
Health**
Mosquito Anti-Viral Defenses
- 4:55 p.m. - 5:35 p.m.** **Alex Sigal, California Institute of Technology**
*Time to Evolution of Drug Resistance Depends on Whether
Drugs Target Infection Frequency or Burst Size*
- IV. HIV*
- 5:35 p.m. - 6:10 p.m.** **Rafick-Pierre Sékaly, University of Montreal**
*Systems Biology Approaches to the Understanding of Memory
T Cell Homeostasis and Correlates of Immune Protection*
- 6:10 p.m. - 6:45 p.m.** **Guido Silvestri, University of Pennsylvania**
Natural SIV infections

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Tuesday, October 7, 2008

8:30 a.m. - 9:00 a.m. COFFEE AVAILABLE - Bloomberg Hall Biology Atrium

9:00 a.m. - 10:30 a.m. DISCUSSION

Moderators:

Arnold J. Levine, Institute for Advanced Study

Alan Bernstein, Global HIV Vaccine Enterprise

Jesse Bloom, California Institute of Technology

**Raúl Rabadán, Columbia University College of Physicians
and Surgeons**

Harlan Robins, Fred Hutchinson Cancer Research Center

Alex Sigal, California Institute of Technology

12:00 p.m. - 1:30 pm. LUNCH - Available in Institute Dining Hall

END OF PROGRAM