

CONFERENCE PROGRAM

DAY ONE - MONDAY 16 SEPTEMBER 2013

- 11:00 Registration
 12:00-13:00 Lunch
 13:00 Welcome address
 Andrew M L Lever, Organizer, Acting co-Editor-in-Chief *Retrovirology*

Session 1: Viral assembly. Chair: Andrew M L Lever

- 13:10 Molecular architecture of the uncleaved HIV-1 envelope glycoprotein trimer
 Joseph Sodroski, Dana-Faber Cancer Institute, Boston, USA
 13:40 Coordinated changes of HIV-1 Gag and Env during assembly and maturation
 Hans-Georg Kräusslich, University of Heidelberg, Germany
 14:10 ESCRT-III and HIV-1 release
 Winfried Weissenhorn, Unit of Virus Host-Cell Interactions, UF-EMBL-CNRS, Grenoble, France
 14:40 Selected talk - Retromer interacts with the HIV-1 envelope glycoprotein and regulates intracellular trafficking
 Clare Jolly, University College London, UK
 14:50 Selected talk - Ubiquitin conjugation to Gag is essential for ESCRT-mediated HIV-1 budding
 Fabila Bouamr, National Institutes of Health, Bethesda, USA
 15:00 Selected talk - The hitchhiker's guide to the viral particle
 Luis Apolonia, King's College London, UK
 15:10-15:40 Coffee break

Session 2: Structural biology. Chair: Oliver Fackler

- 15:40 Crystal structures of transportin 3 (TNPO3) in unliganded, RanGTP- and cargo-bound forms
 Peter Cherepanov, Cancer Research, London, UK
 16:10 Not just a pretty package – the HIV-1 capsid coordinates post-entry infection steps
 Leo James, University of Cambridge, UK
 16:40 First cell(s) infected by vaginal transmission of immunodeficiency virus in rhesus macaques
 Thomas Hope, Northwestern University, Chicago, USA
 17:10 Selected talk - LEDGF/p75 controls 3D-localization of HIV-1 provirus in the nuclear compartment of infected cells
 Annegret Boll, University of Trento, Italy
 17:20 Selected talk - A new LEDGF/p75-associated complex is involved in the establishment and maintenance of HIV-1 latency
 Stéphane Emiliani, INSERM, Institut Cochin & CNRS, Université Paris Descartes, Paris, France
 17:30 Selected talk - The reciprocal antagonistic interplay between HIV-1 Tat and SIN3A specifies the epigenetic switch between de-repression versus maintenance of HIV-1 gene silencing
 Anurag Kulkarni, University College Dublin, Ireland

The Kuan-Teh Jeang Memorial Lecture. Chair: Ronald Swanstrom

- 17:45 Players in the silencing of retroviral DNAs in embryonic stem cells
 Stephen P Goff, Columbia University, New York, USA
 18:30-20:00 Poster Session 1 and Welcome Reception

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DAY TWO - TUESDAY 17 SEPTEMBER 2013

Session 3: Pathogenesis. Chair: Masahiro Fujii

- 8:30 **A new look at the evolution of macrophage-tropic HIV and its role in viral pathogenesis**
Ronald Swanstrom, University of North Carolina at Chapel Hill, USA
- 9:00 **How human T-cell leukemia virus type 1 induces diseases**
Masao Matsuoka, Kyoto University, Japan
- 9:30 **Regulation of HIV-1 gene expression**
Moncef Benkirane, Institut de Génétique Humaine CNRS, Montpellier, France
- 10:05 **Selected talk - Clonality, latency and integration of HTLV-1 *in vivo***
Charles Bangham, Imperial College, London, UK
- 10:15 **Selected talk - Distinct DDX DEAD-box RNA helicases cooperate to modulate the HIV-1 Rev and Tat function**
Yasuo Ariumi, Kumamoto University, Japan
- 10:25 **Selected joint talk - BET proteins target murine leukemia virus integration to transcription start sites**
Mamuka Kvaratskhelia, The Ohio State University, Columbus, USA
- Selected joint talk - Bromodomain and extra-terminal (BET) proteins target Moloney murine leukemia virus integration to transcription start sites**
Jan De Rijck, KU Leuven, Belgium
- 10:40-11:10 **Coffee break**

Session 4: Latency. Chair: Klaus Strebel

- 11:10 **Approaches to eradication of latent HIV infection**
David Margolis, University of North Carolina at Chapel Hill, USA
- 11:40 **HIV-1 latency in activated T cells**
Ben Berkhout, University of Amsterdam, Netherlands
- 12:15 **Molecular mechanisms for HIV latency**
Eric Verdin, University of California, San Francisco, USA
- 12:45-13:45 **Lunch**

Session 5: Restriction factors. Chair: Brian Willet

- 13:45 **Mechanisms of cell-mediated resistance to HIV-1 infection**
Michael Malim, King's College London, UK
- 14:15 **Restrictions to HIV-1 replication in resting CD4⁺ T lymphocytes**
Oliver Fackler, University of Heidelberg, Germany
- 14:45 **Back to the cell cycle with SAMHD1 and its viral antagonist, Vpx**
Florence Margottin-Goguet, INSERM, Institut Cochin, Paris, France
- 15:15 **Selected talk - RNR2 repression by p21 restricts reverse transcription of HIV-1 and related-lentiviruses in macrophages**
Awatef Allouch, Institut Pasteur, Paris, France
- 15:25 **Selected talk - Lv4, an activity that restricts nuclear entry of SIV_{MAC}/SIV_{SM} in human blood cells**
Jeremy Luban, University of Geneva, Switzerland & University of Massachusetts, Worcester, USA

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15:35 Selected talk - The C-terminal domain of SAMHD1 is required for tetramer formation, full enzymatic activity and retroviral restriction
Harriet Groom, MRC National Institute for Medical Research, London, UK

15:45-16:15 Coffee break

Session 6: Special Session. Chair: Ariberto Fassati

Winner, BioMed Central Research Award 2012 - Lecture.

16:15 The ins and outs of HIV restriction
Áine McKnight, Queen Mary University of London, UK

16:45 Selected talk - Influence of Duffy antigen receptor for chemokines on HIV infection
Robin Weiss, University College London, UK

17:00-18:30 Poster Session 2 with Pre-Dinner drinks

19:00-22:00 Conference Dinner at King's College

Dinner Speakers

Deborah Kahn, BioMed Central

Mark A Wainberg, Acting co-Editor-in-Chief *Retrovirology*

DAY THREE - WEDNESDAY 18 SEPTEMBER 2013

Special Lecture: Vaccines. Chair: Monsef Benkirane

8:30 HIV vaccine development, from basic research to clinical trials
Yiming Shao, Chinese Center for Disease Control and Prevention, Beijing, China

Session 7: Innate immunity. Chair: Monsef Benkirane

9:00 Innate immune responses in acute HIV-1 infection: protective or pathogenic?
Persephone Borrow, University of Oxford, UK

9:30 HIV cell-to-cell spread and innate immune responses
Olivier Schwartz, Institut Pasteur, Paris, France

10:00 Innate sensing of retroviral assembly by tetherin
Stuart Neil, King's College London, UK

10:30 Selected talk - Cooperative cytosolic sensing of the HIV cDNA and capsid by dendritic cells
Nicolas Manel, Institut Curie, Paris, France

10:40 Selected talk - Viral protein U (Vpu) reduces innate sensing of human immunodeficiency virus type 1 (HIV-1)-infected cells by plasmacytoid dendritic cells (pDCs) via a BST2/ILT7-dependent process
Éric A Cohen, Institut de recherches cliniques de Montréal, Quebec, Canada

10:50 Selected talk - Detection and destruction of antibody-bound viruses by TRIM21
William McEwan, MRC Laboratory of Molecular Biology, Cambridge, UK

11:00-11:30 Coffee break

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Session 8: Small animal models. Chair: Ariberto Fassati

- 11:30 **Host and viral determinants of feline immunodeficiency virus pathogenicity**
Brian Willett, University of Glasgow, UK
- 12:00 **Is a cure for HIV feasible? A proof-of-concept in humanized mice**
Roberto Speck, University Hospital of Zurich, Switzerland
- 12:30 **SHIVs, monkeys, and anti-HIV-1 neutralizing antibodies**
Malcolm Martin, NIAID, Bethesda, USA
- 13:00 **Sponsored talk – Streamlining your workflow: how to get more out of your research**
Christine Buske, Papers Marketing Manager, Springer Science+Business Media
- 13:15-14:00 Lunch

Session 9: BHIVA Symposium on novel therapies. Chair Olivier Schwartz

- 14:00 **Screening for new antiretroviral targets**
Ariberto Fassati, University College London, UK
- 14:30 **Role of HIV co-receptor usage in viral pathogenesis and cure**
Monique Nijhuis, University Medical Center Utrecht, Netherlands
- 15:00 **LEDGINS, a novel class of antivirals targeting HIV integrase during integration and assembly**
Zeger Debyser, KULAK and KU Leuven, Belgium
- 15:30 **Selected talk - HIV-1 RNA processing as therapeutic target: Characterization of small molecule modulators of HIV-1 RNA processing and transport**
Alan Cochrane, University of Toronto, Canada
- 15:40 **Selected talk - Autologous T-cell therapy based on a lentiviral vector expressing long antisense RNA targeted against HIV-1 *env* gene influences HIV replication and evolution *in vivo***
Alexander Pasternak, Academic Medical Center of the University of Amsterdam, The Netherlands
- 15:50 **Selected talk - A potential HIV therapy based on Tat: novel mechanisms of inhibition targeting Rev and reverse transcription**
David Harrich, Queensland Institute of Medical Research, Brisbane, Australia
- 16:00 **Closing Remarks**
Andrew M L Lever