

AIDS Vaccine 2009 - Scientific Program

Monday, 19 October 2009

08:00 - 16:00

Satellite Sessions

17:00 - 18:30

Welcome and Opening Remarks

Jean-François Delfraissy, ANRS, France

Alan Bernstein, Global HIV Vaccine Enterprise, USA

Michel Kazatchkine, The Global Fund to Fight AIDS, Tuberculosis and Malaria,
Switzerland

Michel Sidibé, UNAIDS, Switzerland

17:40 - 18:05

The state of HIV prevention: How well are we doing in preventing HIV worldwide, and how can we do better?

Peter Piot, Global Health Institute, Imperial College, UK

18:05 - 18:30

Partner, participants and problem-solvers: Expanding from "Informed Consent" to "Informed Communities" in the Search for the AIDS Vaccine

Mitchell Warren, AVAC, USA

Tuesday, 20 October 2009

08:30 - 10:00

Special Session: Recent Lessons From Clinical Trials

08:30 - 09:00

AIDS Vaccine Clinical Evaluation: Where Are We and Where Can We Go?

Gary Nabel, Vaccine Research Center, NIH, USA

09:00 - 09:20

Clinical Outcomes from the STEP Study

Susan Buchbinder, HIV Research Section, San Francisco Department of Public Health, USA

09:20 - 09:40

Recent Immunologic Findings from the Step and Related HIV Vaccine Clinical Trials

Nicole Frahm, Fred Hutchinson Cancer Research Center, USA

09:40 - 10:00

Interim Efficacy Analysis of HVTN 503/Phambili: A phase IIB test of concept trial of the MRKAd5 HIV-1 gag/pol/nef vaccine conducted in HIV-1 uninfected adults in South Africa

Glenda Gray, Perinatal HIV Research Unit, University of Witwatersrand, South Africa

- 10:00 - 10:50** **New Session: Spotlight on RV144, the phase III Thai trial**
- 10:00 - 10:20 **Phase III Trial of HIV Prime-Boost Vaccine Combination in Thailand: Result of Final Analysis**
Supachai Rerks-Ngarm, Ministry of Health, Thailand
- 10:20 - 10:35 **Post-infection cellular immune responses in recipients following ALVAC-HIV + AIDSVax B/E prime-boost vaccination in the Thai phase III trial**
Jerome Kim, Military HIV Research Program, USA
- 10:35 - 10:50 **Immunogenicity of ALVAC-HIV® (vCP1521) and AIDSVAX® B/E prime boost vaccination in RV144, the Thai phase III HIV vaccine trial**
Mark de Souza, US Military HIV Research Program/AFRIMS, Thailand
- 10:50 - 11:15 **Coffee Break**
- 11:15 - 12:45** **Plenary Session 1: Initiation of the Immune Response**
- 11:15 - 11:45 **Innate Control of Adaptive Immunity to Vaccines and Pathogens**
Bali Pulendran, Emory Vaccine Center, Emory University, USA
- 11:45 - 12:15 **Harnessing Human Dendritic Cell Subsets for HIV Vaccines**
Jacques Banchereau, Baylor Institute for Immunology Research, USA
- 12:15 - 12:45 **T cell control and viral escape**
Phil Goulder, University of Oxford, UK
- 12:45 - 14:00** **Lunch + Poster Session 01**
- 14:00 - 16:00** **Symposium 1: Mechanisms of Protection against Transmission and Disease Progression**
- 14:00 - 14:25 **Epigenetic control of retroelements**
Didier Trono, École Polytechnique Fédérale de Lausanne, Switzerland
- 14:25 - 14:50 **Crosstalk between RNAi and HIV**
Moncef Benkirane, Institut de Génétique Humaine, France
- 14:50 - 15:15 **Regulation of Harmful Immune Activation during Non Pathogenic SIVagm Infection in African Green Monkeys**
Michaela Müller Trutwin, Institut Pasteur, France
- 15:15 - 15:30 **Phenotypic Analyses of CD8+ T cells that Mediate Virus Inhibition from HIV-1 Vaccinees and HIV-1+ Virus Controllers**
Stephanie Freel, Duke University Medical School, USA
- 15:30 - 15:45 **HLA-A*7401 is Associated with Protection from HIV-1 Acquisition and Disease Progression in Mbeya, Tanzania**
Rebecca Koehler, US Military HIV Research Program/ Henry M Jackson Foundation, USA
- 15:45 - 16:00 **HIV Specific T Cell Responses and Response Patterns Associated with Viral Control Independent of Classical Non-Progressor HLA class I Alleles**
Christian Brander, Irsicaixa AIDS Research Institute, Spain

- 14:00 - 16:00** **Symposium 2: Generation of Antibody Responses and Diversity**
- 14:00 - 14:25 **Regulation of Broadly Neutralizing Antibody Responses: The Initial B Cell Repertoire To HIV-1 Envelope**
Barton Haynes, Duke University Medical Center, USA
- 14:25 - 14:50 **Factors Associated with the Development of HIV Neutralization Breadth**
Lynn Morris, National Institute for Communicable Diseases, South Africa
- 14:50 - 15:15 **Eliciting Broad Anti-HIV Neutralizing Antibodies by Vaccination: Lessons Learned from Natural Infection**
Leonidas Stamatatos, Seattle Biomedical Research Institute, USA
- 15:15 - 15:30 **A Large-Scale Analysis of Immunoglobulin Sequences Derived From Plasmablasts/Plasma Cells in Acute HIV-1 Infection Subjects**
Supriya Munshaw, Duke University, USA
- 15:30 - 15:45 **Broadly neutralizing anti-HIV-1 antibodies disrupt a hinge-related function of gp41 at the membrane interface**
Mikyung Kim, Dana-Farber Cancer Institute, USA
- 15:45 - 16:00 **Potent and Broad Neutralizing Antibodies from HIV-1 non-Clade B Infected Donor Reveal a New HIV-1 Vaccine Target**
Sanjay Phogat, IAVI, USA
- 16:00 - 17:00 **Coffee Break + Poster Viewing**
- 17:00 - 18:30** **Oral Abstract Session 1: Early Events in Transmission and Infection**
- 17:00 - 17:15 **Early events of human immunodeficiency virus type 1 (HIV-1) ex vivo penetration in the foreskin mimicking HIV-1 sexual transmission**
Yonatan Ganor, Cochin Institute, France
- 17:15 - 17:30 **Defining the Mechanisms of HIV Entry and Interactions with the Female Genital Tract**
Ann Carias, Northwestern University, USA
- 17:30 - 17:45 **Clusterin, a natural ligand of DC-SIGN present in human semen inhibits HIV capture and transmission by dendritic cells**
Juan Sabatte, National Reference Center for AIDS, Argentina
- 17:45 - 18:00 **Striking elevations in systemic and mucosal cytokine and chemokine levels in acute HIV-1 infection.**
Andrea Stacey, Jenner Institute, University of Oxford, UK
- 18:00 - 18:15 **TLR-mediated pDC responses to HIV-1 ligands**
J. Judy Chang, Ragon Institute of MGH, MIT and Harvard, USA
- 18:15 - 18:30 **HIV-1 Plasma RNA Risk of HIV-1 Transmission**
Jairam Lingappa, University of Washington, USA

17:00 - 18:30

Oral Abstract Session 2: Vaccine Design

17:00 - 17:15

Construction and characterization of replication competent attenuated NYVAC-based vectors as potential HIV vaccines

Bert Jacobs, Arizona State University, USA

17:15 - 17:30

Replicating measles-SHIV vaccine induces long term preservation of central memory CD4 cells in the gut of vaccinated macaques challenged with SHIV

Frederic Tangy, Institut Pasteur, CNRS, France

17:30 - 17:45

Design and Development of DNA vaccines for the Co-expression of micro-RNA and HIV-1 Env

Adam Wheatley, University of Melbourne, Australia

17:45 - 18:00

HIV-1 gp41 Envelope MPER Mutation Altered Epitope Conformation in Lipid and Increased Sensitivity to 2F5 and 4E10 Neutralizing Antibodies

Xiaoying Shen, Duke University, USA

18:00 - 18:15

Insertion of the HIV-1 gp41 Epitopes 2F5 and 4E10 into the Membrane-Proximal Region of the Vesicular Stomatitis Virus Glycoprotein

Ivo Lorenz, International AIDS Vaccine Initiative, USA

18:15 - 18:30

Recombinant modified Vaccinia Virus Ankara expressing HIV-1 genes activates NK subset capable of controlling HIV infection in vitro

Jean-Saville Cummings, Institut Pasteur, France

17:00 - 18:30

Oral Abstract Session 3: Modulation of the Immune Response to Infection

17:00 - 17:15

HIV-1 infection is characterized by early loss of CD161+ Th17 Cells and Gradual Decline in Regulatory T cells

Andrew Prendergast, University of Oxford, UK

17:15 - 17:30

Regulatory T cells inhibit CD8 T cell proliferation in HIV-1 infection through CD39/Adenosine pathway

Yves Levy, AP-HP, Groupe Henri-Mondor Albert-Chenevier; Universite Paris 12, France

17:30 - 17:45

Increased Regulatory T cell Frequency and HIV-1 Specific Suppression After Therapeutic Vaccination of HIV-Infected Patients on Antiretroviral Therapy

Bernard Macatangay, University of Pittsburgh, USA

17:45 - 18:00

Impairment of HIV-1-specific CD8+ T cell function by soluble epithelial adhesion molecules

Hendrik Streeck, Ragon Institute of MGH, MIT and Harvard, USA

18:00 - 18:15

HIV escape from natural killer cytotoxicity: Nef inhibits NKp44L expression on HIV-infected CD4+ T cells.

Vincent Vieillard, INSERM UMR945, France

18:15 - 18:30

Unique stimulatory properties of myeloid dendritic cells in individuals with "elite" HIV-1 control

Mathias Lichterfeld, Massachusetts General Hospital, USA

Wednesday, 21 October 2009

09:00 – 10:30 Plenary Session 2: In Vivo Response to Pathogens and Vaccines

09:00 - 09:30 **In Vivo Dynamics of the Immune Response as Revealed by Multiphoton Imaging**
Ron Germain, NIAID NIH, USA

09:30 - 10:00 **Efficacy of CMV/SIV Vectors**
Louis Picker, Vaccine and Gene Therapy Institute, OHSU, USA

10:00 - 10:30 **TB Vaccine Development**
Jerald Sadoff, AERAS Global TB Vaccine Foundation, USA

11:00 - 12:15 Oral Abstract Session 4: Update on Clinical Trials

11:00 - 11:15 **Safety and Immunogenicity of LIPO-5, a HIV-1 lipopeptide vaccine: Results of ANRS VAC18, a Phase 2, Randomized, Double-Blind, Placebo-Controlled Trial**
Dominique Salmon-Céron, Hôpital Cochin, Université Paris Descartes, France

11:15 - 11:30 **Strong HIV-specific CD4 and CD8 T-lymphocyte proliferation in HIV-1 DNA prime/modified Vaccinia virus Ankara (MVA) heterologous boost vaccines**
Charlotta Nilsson, Swedish Institute for Infectious Disease Control, Karolinska Institute, Sweden

11:30 - 11:45 **Characterization of cell-mediated immune responses generated by recombinant Modified Vaccinia Ankara (rMVA)-HIV-1 in a Phase I Vaccine Trial**
Jeffrey Currie, Military HIV Research Program, USA

11:45 - 12:00 **Perceived parental willingness for their adolescents to participate in future HIV prevention trials: A survey conducted amongst adolescents in Soweto**
Kennedy Otworld, Perinatal HIV Research Unit, South Africa

12:00 - 12:15 **Safety and Viral Load changes in HIV-1 Infected Subjects Treated with Autologous Dendritic Immune Therapy following ART discontinuation (CTN#239)**
Jean-Pierre Routy, McGill University and INSERM Unit 743, Canada

11:00 - 12:30 Oral Abstract Session 5: Novel Vaccinal Approaches

11:00 - 11:15 **In Vivo Electroporation Enhances the Immunogenicity of ADVAX, a DNA-based HIV-1 Vaccine Candidate, in Healthy Volunteers**
Sandhya Vasan, Aaron Diamond AIDS Research Center, Rockefeller University, USA

11:15 - 11:30 **Analysis of DNA compared to Ad5 vaccination, as single and mixed modalities, demonstrates robust induction of cellular immune responses in macaques**
Lauren Hirao, University of Pennsylvania, USA

11:30 - 11:45 **Efficacy study of a T-cell-based DNA vaccine delivered by intradermal electrotransfer in macaques**
Frédéric Martinon, CEA / Division of Immuno-Virology, France

- 11:45 - 12:00 **Gp96-Ig-SIV vaccines induce predominant immune responses at mucosal sites**
Natasia Strbo, University of Miami Miller School of Medicine, USA
- 12:00 - 12:15 **Impact of in vivo CD4 binding during HIV-1 Env trimer immunizations of rhesus macaques**
Iyadh Douagi, Karolinska Institutet, Sweden
- 12:15 - 12:30 **First-in-human phase 1 safety and immunogenicity of an Adenovirus Serotype 26 HIV-1 vaccine vector**
Dan Barouch, Beth Israel Deaconess Medical Center, USA
- 11:00 - 12:30 Oral Abstract Session 6: Dynamics of HIV Infection and the Immune Response**
- 11:00 - 11:15 **Multiplicity of infection by HIV-1 in injection drug users, men who have sex with men and heterosexuals**
Katharine Bar, University of Alabama at Birmingham, USA
- 11:15 - 11:30 **Monospecific Expansion of SIVmac251 During Acute Infection Masks Multiple Transmitted Virus Variants Revealed During the Chronic Phase**
Barbara Felber, HRPS, VB, NCI-Frederick, USA
- 11:30 - 11:45 **Dynamics of CTL Epitope Escape and Reversion in an African Subtype C cohort**
Malinda Schaefer, Emory University, USA
- 11:45 - 12:00 **The Role Of Early T-Cell Responses In Subjects With Acute HIV-1 Infection**
Michael Liu, University of Oxford, UK
- 12:00 - 12:15 **Adaptation of HIV-1 to the Human Immune System at the Population Level is Driven by Protective HLA-B Alleles**
Ingrid Schellens, University Medical Center Utrecht, Netherlands
- 12:15 - 12:30 **Evidence of vaccine-induced changes in breakthrough HIV-1 strains from the Step trial**
James Mullins, University of Washington, USA
- 12:30 - 14:00 **Lunch + Poster Session 02**
- 14:00 - 16:00 Symposium 3: Immunological Memory and Protection**
- 14:00 - 14:25 **System Biology to Study Immunological Memory during HIV Infection**
Elias Haddad, McGill University, Canada
- 14:25 - 14:50 **Correlates of protection to HIV**
Alexandre Harari, Centre Hospitalier Universitaire Vaudois, Switzerland
- 14:50 - 15:15 **T Cell Clonotypic Correlates of Virus Control**
Daniel Douek, Vaccine Research Center, NIH, USA
- 15:15 - 15:30 **Transitional and Central Memory CD4 T Cells are highly infected in Long Term Non Progressors and Elite Controllers**
Benjamin Descours, Université Paris VI UPMC, INSERM UMRs945, France

- 15:30 - 15:45 **A Less Differentiated Memory Phenotype of Gag-Specific CD4+ T-cells during Primary HIV Infection Associates with Viral Control at 12 Months**
Pholo Maenetje, National Institutes for Communicable Diseases, South Africa
- 15:45 - 16:00 **Rapid perforin upregulation by CD8 T cells in elite controllers as a correlate of immune-mediated control of HIV replication**
Adam Hersperger, University of Pennsylvania, USA
- 14:00 - 16:00 Symposium 4: Antigen Presentation and T Cell Epitopes**
- 14:00 - 14:25 **Semen clusterin binds DC-SIGN and inhibits HIV-1 capture and transmission by dendritic cells**
Sebastian Amigorena, Institut Curie, Paris, France
- 14:25 - 14:50 **Immune recognition of HIV-1 during acute infection**
Marcus Altfeld, Ragon Institute of MGH, MIT and Harvard, USA
- 14:50 - 15:15 **Transcriptional control of crosspresentation programs in dendritic cells**
Kenneth Murphy, Washington University School of Medicine, USA
- 15:15 - 15:30 **HIV-specific responses induced by anti-CD40 targeting antibodies**
Nicolas Loof,INSERM U899-BIIR/INSERM/ANRS Center for Human Vaccines, USA
- 15:30 - 15:45 **The intracellular production of HIV antigenic peptides is guided by predictable motifs and can be altered: implications for immunogen design**
Sylvie Le Gall,Harvard Medical School and Mass General Hospital, USA
- 15:45 - 16:00 **Polyvalent Gag-specific CD8 T-cells with enhanced functional properties are enriched in HIV-1 clade C infected individuals with lower viral loads**
Boris Julg, Ragon Institute of MGH, MIT and Harvard, USA
- 16:00 - 17:00 **Coffee Break + Poster Viewing**
- 17:00 - 18:40 Symposium 5: Protection Against Mucosal Transmission and Viral Dissemination**
- 17:00 - 17:25 **Characterization of viral variants that initiate systemic infection after mucosal transmission**
Eric Hunter, Emory Vaccine Center, USA
- 17:25 - 17:50 **Target Cell Availability and Prevention of Mucosal Transmission**
Ashley Haase, University of Minnesota Medical School, USA
- 17:50 - 18:15 **Do Mucosal T-cell Responses Contribute Significantly to HIV Control?**
Barbara Shacklett, UC Davis, USA
- 18:15 - 18:40 **Treatment as Prevention**
Bernard Hirschel, University Hospital Geneva, Switzerland
- 17:00 - 18:40 Symposium 6: Refining Immunogen Design**
- 17:00 - 17:25 **Structural basis of broad neutralization of HIV-1**
Ian Wilson, The Scripps Research Institute, USA

- 17:25 - 17:50 **Primary Immunization Influences the Magnitude, Quality and Breadth of Gag Specific T Cell Responses Following an rAd-5 Boost**
Robert Seder, Vaccine Research Center, NIH, USA
- 17:50 - 18:15 **New Applications for Mosaic Antigen Designs**
Bette Korber, Los Alamos National Laboratory, USA
- 18:15 - 18:40 **HIV-1 Mosaic Antigens Expand Cellular Immune Breadth and Depth in Rhesus Monkeys**
Dan Barouch, Beth Israel Deaconess Medical Centre, Harvard Medical School, USA

Thursday, 22 October 2009

- 09:00 – 10:30 Plenary Session 3: B Cell Biology**
- 09:00 – 09:30 **Development of anti-HIV antibodies in humans with high titers of broadly neutralizing antibodies**
Michel Nussenzweig, Howard Hughes Medical Institute, The Rockefeller University, USA
- 09:30 – 10:00 **From Antibody to Vaccine – a Tale of Structural Biology and Epitope Scaffolds**
Peter Kwong, Vaccine Research Center, NIH, USA
- 10:00 - 10:30 **Induction and Function of the Mucosal Immune System**
Per Brandtzaeg, University of Oslo, Norway
- 11:00 - 11:45 Oral Abstract Session 7: T Cell Responses to Vaccine**
- 11:00 - 11:15 **HIV-Specific CD8+ T-Cells of Vaccinees Exhibit Proliferative and Cytotoxic Capacities Comparable to Those of Progressors**
Julia Rood, National Institute of Health, USA
- 11:15 - 11:30 **Adenovirus vectors induce expansion of memory CD4 T cells with a mucosal homing phenotype that are readily susceptible to HIV-1 infection.**
Adel Benlahrech, Imperial College, UK
- 11:30 - 11:45 **Influence of Preexisting Vaccinia Immunity on a DNA/MVA SIV Vaccine, Decreased Cellular Immunity but Enhanced Control of a Pathogenic SIV Challenge**
Rama Amara, Yerkes National Primate Center of Emory University, USA
- 11:45 - 12:35 Closing Session**
- 11:45 - 12:10 **HIV Vaccinology: What Does the Future Hold?**
Anthony Fauci, NIAID, NIH, USA
- 12:10 - 12:35 **Are we targeting the right HIV determinants?**
Françoise Barré-Sinoussi, Institut Pasteur, France
- 12:35 – 12:45 Closing Remarks and Handover**
- 12:35 - 12:40 Yves Levy, ANRS, France
- 12:40 - 12:45 Eric Hunter, Emory Vaccine Center, USA