



## PRELIMINARY PROGRAM

### WEDNESDAY, JUNE 9, 2010

08:30 Opening Remarks  
Brendan Larder; RDI, UK

08:45 Introduction of the Plenary Presentation  
Charles Boucher; Erasmus University, Erasmus Medical Center, Rotterdam, Academic Hospital, Utrecht, the Netherlands

09:00-09:50 Plenary Presentation: Influenza Resistance  
Menno de Jong; University of Amsterdam, the Netherlands

### RESISTANCE TO NEW ANTIRETROVIRAL AGENTS

Chairs: Brendan Larder; RDI, UK  
Raymond Schinazi; Emory University/VA Medical Center, USA

09:50 Mutations Based on Viral Decay Acceleration in the HIV-1 Genomes of a Clinical Population Treated with the Mutagenic Nucleoside KP1461  
James Mullins; University of Washington, USA

10:05 The Crystal Structure of EFdA-Resistant HIV-1 Reverse Transcriptase Reveals Structural Changes in the Polymerase Active Site  
Bruno Marchand; University of Missouri, USA

10:20 Temporal Order of Resistance Emergence for Lamivudine/Emtricitabine, Efavirenz, and Raltegravir in Treatment-Naïve Patients  
Michael Miller; Merck & Co., Inc., USA

10:35 Strong Inhibition of Wild-Type and Integrase Inhibitor (INI)-Resistant HIV Integrase (IN) Strand Transfer Reaction by the Novel INI S/GSK1349572  
Tomokazu Yoshinaga; Shionogi, Japan

10:50-11:20 **BREAK**



**WEDNESDAY, JUNE 9, 2010 (continued)**

**MECHANISMS OF HIV DRUG RESISTANCE**

- 11:20 The K65R Mutation in Subtype B and C HIV-1: Rates of Development and the Implications of Template-Specific Dislocation Mutagenesis  
Dimitrios Coutinos; McGill University AIDS Centre, Canada
- 11:35 Differential Resistance in HIV-1 Protease: The Role of Residue 50 in Pathways for Amprenavir/Darunavir and Atazanavir Resistance  
Madhavi Kolli; University of Massachusetts Medical School, USA
- 11:50 Substrate Envelope Based Design of Potent HIV-1 Protease Inhibitors Resilient to Resistance  
Madhavi Nalam; University of Massachusetts Medical School, USA
- 12:05 S/GSK1349572 Demonstrates Significantly Slower Dissociation Rates than Raltegravir when Comparing Wild Type and Raltegravir Resistant Integrase Protein  
Kendra Hightower; GlaxoSmithKline, USA
- 12:20 LUNCH**



**WEDNESDAY, JUNE 9, 2010 (continued)**

**13:30-15:30 POSTER VIEWING**

- Oral presentations from Wednesday
- Resistance to New Antiretroviral Agents
- Mechanisms of HIV Drug Resistance
- New Resistance Technologies and Interpretations

**GENOTYPIC AND PHENOTYPIC MARKERS OF RESPONSE TO ENTRY INHIBITORS**

Chairs: Daniel Kuritzkes; Brigham and Women's Hospital, USA  
Jonathan Schapiro; National Hemophilia Center, Israel

- 15:30 Genotypic Analysis of V3 in Patients Experiencing Virologic Failure on Maraviroc-containing Regimens and Correlation with Pre-treatment "Deep" Sequencing Results  
Luke Swenson; BC Centre for Excellence in HIV/AIDS, Canada
- 15:37 Use of the Enhanced Sensitivity Tropism Assay (ESTA) to Predict On-Treatment Detection of CXCR4-using Virus and Impact on Virologic Outcomes in a Vicriviroc (VVC) Phase 2 Treatment Experienced Study (VICTOR-E1)  
Julie Strizki; Merck, USA
- 15:44 Defining Evolutionary Pathways and Genetic Barriers to CXCR4-Mediated Entry by Human Immunodeficiency Virus Type 1  
Wei Huang; Monogram Biosciences, USA
- 15:51 Specific Genetic Signatures in V3 Base Can Modulate Co-receptor Usage in Vivo, the Interaction with Neutralizing Antibodies, and HIV-1 Cytopathic Effect  
Valentina Svicher; University of Rome Tor Vergata, Italy
- 15:58 Clinical, Virological, and Immunological Characteristics of Patients With Discordant Phenotypic and Genotypic (Ultra-Deep Sequencing) Tropism Test Results: Analysis of Tropism Calls in MOTIVATE and 1029  
Jayvant Heera; Pfizer, USA
- 16:05 Pairwise Comparison of Genotypic Tropism Prediction between One Reference Center and 10 European Laboratories  
Rolf Kaiser; University of Cologne, Germany
- 16:12-16:37 Panel Discussion



**THURSDAY, JUNE 10, 2010**

**HBV DRUG RESISTANCE**

Chairs: Douglas Richman; VA San Diego Healthcare System and University of California San Diego, USA  
Gaston Picchio; Tibotec, Inc., USA

08:30 Introduction of the Plenary Presentation  
Douglas Richman; VA San Diego Healthcare System and University of California San Diego, USA

08:45 - 09:30 Plenary Presentation: Hepatitis B: New Treatments and Drug Resistance  
Stephen Locarnini; Victorian Infectious Diseases Reference Laboratory (VIDRL), Australia

09:30 The HBV Genetic Barrier and the Overlapping Structure of HBV Genome Synergistically Modulate Drug Resistance Emergence and Immune Escape Potential of HBV Genotypes  
Valentina Svicher; University of Rome Tor Vergata, Italy

**HCV DRUG RESISTANCE**

09:40 Introduction of the Plenary Presentation  
Douglas Richman; VA San Diego Healthcare System and University of California San Diego, USA

09:45 - 10:30 Plenary Presentation: Hepatitis C: New Treatments and Drug Resistance  
Jean-Michel Pawlotsky; Hôpital Henri Mondor, Université Paris, France

**10:30-11:00 BREAK**

Chairs: Douglas Richman; VA San Diego Healthcare System and University of California San Diego, USA  
Abel De La Rosa; Pharmasset, Inc., USA

11:00 Analysis of Resistance in Virologic Failures during IFN/RBV Therapy Post 28 Day Treatment with MK7009; Results through Week 24 of the Phase 2A Dosing Finding Study in Genotype 1 Patients  
Richard Barnard; Merck and Co., USA

11:10 Avoiding Drug Resistance against HCV NS3/4A Protease Inhibitors  
Celia Schiffer; University of Massachusetts Medical School, USA

11:20 Resistance Profile of the Novel Hepatitis C Virus (HCV) Acyclic Nucleoside Phosphonate Inhibitor ODE-S-MPMPA  
David Wyles; University of California San Diego, USA



**THURSDAY, JUNE 10, 2010 (continued)**

- 11:30 Deep Sequencing Analysis of Baseline and on Treatment Samples from HCV Genotype 1 Patients Treated for 5 Days with TMC435 Monotherapy and Subsequently Re-treated with TMC435 in Combination with PegIFNa 2a/Ribavirin  
Oliver Lenz; Tibotec BVBA, Belgium
- 11:40 Selection and Characterization of Hepatitis C Virus Replicons Using Combination of NS3 Protease and NS5B Non-nucleoside Inhibitors or Combination of NS5B Nucleotide Inhibitors  
Angela Lam; Pharmasset Inc., USA
- 11:50 Characterization of Resistant Variants in Treatment-Experienced Genotype 1 HCV Patients Receiving Telaprevir/Peginterferon/Ribavirin in Phase 2 Clinical Trials  
Jim Sullivan; Vertex Pharmaceuticals Incorporated, USA
- 12:00 Long Term Follow Up of Patients Treated with Boceprevir in Combination with PEG-Intron/Ribavirin (P/R): Durability of Responses and Rates of Reversion of Resistance Mutations  
Richard Barnard; Merck and Co., USA
- 12:10 Molecular Characterization of HCV Resistance to Telaprevir, a Novel, Potent HCV Protease Inhibitor  
Stephane Chevaliez; Henri Mondor Hospital, France
- 12:20 LUNCH**



**THURSDAY, JUNE 10, 2010 (continued)**

**13:30-15:30 POSTER VIEWING**

- Oral presentations from Thursday
- HBV/HCV Resistance
- Clinical Implications of Resistance
- Drug Resistance in Resource Poor Countries

**APPLICATION OF NEW SEQUENCING TECHNIQUES**

Chairs: Robert Shafer; Stanford University, USA  
Richard Harrigan; BC Centre for Excellence in HIV/AIDS, Canada

- 15:30 Next Generation Deep Sequencing Technologies for Virus Quasispecies Analysis: Implications for Detecting Minority Drug Resistant Variants  
Robert Shafer; Stanford University, USA
- 15:50 Reduced PCR-based Recombination for HIV-1 Drug Resistance Mutation Linkage Determination by 454 Pyrosequencing  
Wei Shao; ABCC, SAIC Frederick, NCI Frederick, USA
- 15:57 Prevalence of Low-level Variants with RT K65R among Different HIV Subtypes and the Effects of ARV-exposure on Variant Levels  
Michael Kozal; Yale University School of Medicine and VA CT, USA
- 16:04 Presence of Low Abundance Drug Resistant Mutations in Recently Infected HIV Subtype C Patients from South Africa  
Carole Wallis; University of the Witwatersrand, South Africa
- 16:11 Single Transmitted Drug Resistance Mutations: Not Always an Indicator of Transmission of More Extensive Resistance Profiles  
Marieke Pingen; Erasmus Medical Center and University Medical Center Utrecht, the Netherlands
- 16:18 A Multicenter Collaborative Study on HIV Drug Resistance Testing using 454 Massively Parallel Pyrosequencing  
Martin Däumer; Institute of Immunology and Genetics, Germany
- 16:25-16:50 Panel Discussion



**FRIDAY, JUNE 11, 2010**

**HIV PATHOGENESIS, FITNESS AND RESISTANCE**

Chairs: John Mellors; University of Pittsburgh, USA

Charles Boucher; Erasmus University, Erasmus Medical Center, Rotterdam, Academic Hospital, Utrecht, the Netherlands

09:00 HIV-1 Drug Resistance Evolution During Persistent Near Target Viral Suppression  
Babafemi Taiwo; Northwestern University, USA

09:15 Complete Protection against Rectal Transmission of an Emtricitabine (FTC)-Resistant SHIV162p3<sub>M184V</sub> Mutant by Intermittent Prophylaxis with Truvada  
J. Gerardo Garcia-Lerma; Centers for Disease Control and Prevention, USA

09:30 Factors Affecting the Emergence of Intersubtype Recombinants in HIV-1 Population  
Wei-Shau Hu; National Cancer Institute, USA

09:45 Analysis of HIV DNA Molecules in Paired Peripheral Blood and Lymph Node Tissue Samples from Chronically Infected Patients  
Sarah Palmer; Swedish Institute for Infectious Disease Control, Karolinska Institute, Sweden

10:00 The Relationship between Virus Replication and Gene Expression in Lymphatic Tissue during HIV-1 Infection  
Anthony Smith; University of Minnesota, USA

**10:15-10:45 BREAK**

**PERSISTENCE, RESERVOIRS AND ELIMINATION STRATEGIES**

10:45 The Histone Deacetylase Inhibitors SAHA, MS-275, LBH589 and MCT3 are able to Induce HIV-1 Transcription with Differing Potencies in Chronically Infected Cell Lines and Latently Infected Primary CD4+ T-cells  
Fiona Wightman; Monash University, Australia

11:00 Most HIV DNA in PBMC is Present in Non-Gut Homing, Resting Central Memory CD4 T Cells  
Kersten Koelsch; National Centre in HIV Epidemiology and Clinical Research and St Vincent's Hospital Centre for Applied Medical Research, Australia

11:15 Emergence of Monotypic HIV-1 DNA during ART Suggests Proliferation of Cells with Integrated HIV DNA Provirus May Sustain Infection  
Thor Wagner; Seattle Children's Hospital, University of Washington, USA

11:30 Rebound HIV-1 Viremia after Cessation of Long-Term Suppressive Antiretroviral Therapy (ART) has Low Genetic Diversity and Little Divergence from Pre-Therapy Virus Populations  
Mary Kearney; National Cancer Institute, USA

11:45-12:15 Panel Discussion

**12:15 LUNCH**



**FRIDAY, JUNE 11, 2010 (continued)**

**13:30-15:30 POSTER VIEWING**

- Oral presentations from Friday
- HIV Pathogenesis, Fitness and Resistance
- Persistence, Reservoirs and Elimination Strategies
- Epidemiology

**EPIDEMIOLOGY**

Chairs: Charles Boucher; Erasmus University, Erasmus Medical Center, Rotterdam, Academic Hospital, Utrecht, the Netherlands  
Huldrych Günthard; University Hospital Zurich, Switzerland

15:30 Dynamic Expression of HIV-1 Drug Resistance Mutations during Acute Infection  
Jeffrey Johnson; Centers for Disease Control and Prevention, USA

15:40 Large Scale Phylodynamics of HIV-1 in Italy: Analysis on Epidemic and Resistance Transmission  
Mattia Prosperi; Catholic University of Sacred Heart, Italy

15:50 The Effect of Transmitted HIV-1 Drug Resistance on Pre-therapy Viral Load  
David Dunn; MRC Clinical Trials Unit, UK

16:00 Prevalence of HIV-1 Drug Resistance-associated Mutations in a Large Cohort of Antiretroviral-naive HIV-infected Individuals in the United States from 2000-2009  
Lisa Ross; GlaxoSmithKline, USA

16:10 Rapid Accumulation of Drug Resistance and Loss of Therapeutic Options Precede WHO Defined Criteria for Treatment Failure  
Annemarie Wensing; University Medical Center Utrecht, the Netherlands

16:20 Closing Remarks  
Charles Boucher; Erasmus University, Erasmus Medical Center, Rotterdam, Academic Hospital, Utrecht, the Netherlands

**20:00 AWARDS DINNER**