December 8-11,
2015

7 HIV Persistence during Therapy™

Seventh International Workshop

FINAL PROGRAM


8TH EDITION
DECEMBER 12-15, 2017
HIV PERSISTENCE DURING THERAPY
Reservoirs & Eradication Strategies Workshop
FLORIDA
MIAMI
USA
www.hiv-persistence.com

SUMMARY

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General Hospital, Toulon – FRA

David Margolis, MD
University of North Carolina at Chapel Hill, Chapel Hill – USA

Karl Salzwedel, MD
National Institute of Allergy and Infectious Diseases, Bethesda – USA

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University of Miami Leonard M. Miller School of Medicine, Miami – USA

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Guido Poli, Milan – ITA
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Jean-Pierre Routy, Montréal – CAN
Christine Rouzioux, Paris – FRA
Andrea Savarino, Rome – ITA
Robert Siliciano, Baltimore – USA
Andrew Spaltenstein, Durham – USA
Carine Van Lint, Gosselies – BEL
Mark Wainberg, Montréal – CAN

WELCOME ADDRESS

I am delighted to welcome you to the Seventh International Workshop on HIV Persistence during Therapy, scheduled for December 8-11, 2015 in Miami.

Since the first edition of this workshop in 2003 in St Maarten, the issue of "HIV Persistence & Reservoirs" has become more relevant, not only for the biologist but also for the clinician facing the problem of the long-term control of this persistent retroviral infection.

Several meetings have now included reviews on these topics in their program, but this workshop is unanimously recognized as "the reference workshop on HIV reservoirs & eradication strategies." Our main objective is to keep it driven by Science and new data.

The program format continues to follow the past successes and includes presentations of new, unpublished data and a panel of experts to sum up the current advances in the field. The number of participants is now limited to 250 to keep the workshop interactive. As in the past, abstract selection will be extremely rigorous and conducted by the Scientific Committee, focusing on new progress in the field.

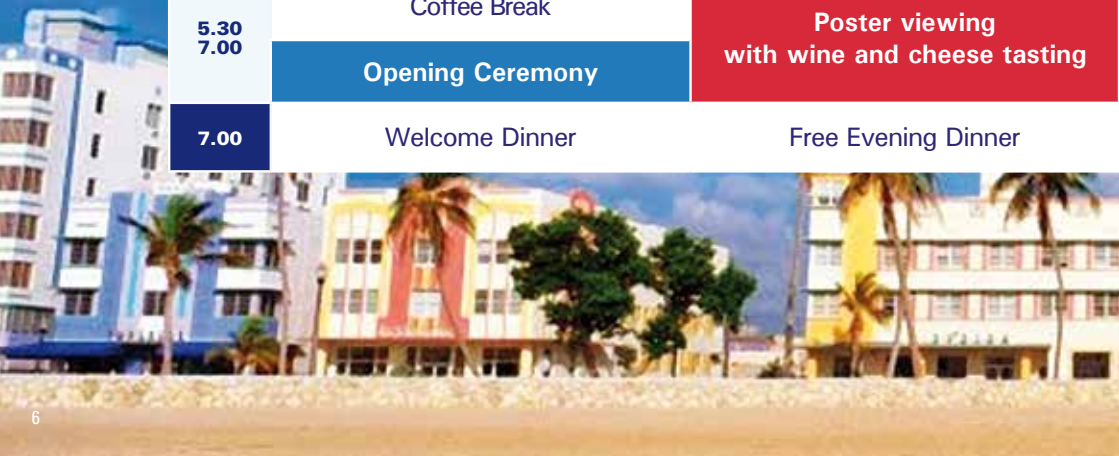
As usual, we gather the top international leaders in these fields to bring you updated state-of-the-art lectures. Sessions are also dedicated to free oral presentations and posters selected among the best received abstracts.

I am delighted to see you in Miami!

Alain Lafeuillade, MD, On behalf of the Steering Committee

The Seventh International Workshop on HIV Persistence during Therapy is organized under the auspices of:

Time	Tuesday, December 8	Wednesday, December 9
08.00 10.00		**Session 1** **In vitro and in vivo Models of HIV Persistence**
10.00 10.30		Coffee Break
10.30 12.30		**Session 2** **Basic Science of HIV Latency**
12.30 2.00		Lunch
2.00 3.30	**DAIDS Martin Delaney Collaboratory satellite workshop**	**Session 3** **Virology of HIV Persistence**
3.30 4.00		Coffee Break
4.00 5.30		**Session 4** **Anatomic and non-CD4 Cell Reservoirs**
5.30 7.00	Coffee Break **Opening Ceremony**	**Poster viewing with wine and cheese tasting**
7.00	Welcome Dinner	Free Evening Dinner



Thursday, December 10	Friday, December 11
Session 5 **Immunoloy of HIV Persistence**	**Session 9** **New Therapeutic Approaches 1**
Coffee Break	Coffee Break
Session 6 **Pharmacology of HIV Persistence**	**Session 10** **New Therapeutic Approaches 2**
Lunch	**Closing Ceremony**
Session 7 **Drug Discovery**	
Coffee Break	
Session 8 **Practical Issues in Designing HIV Cure Trials**	
Poster viewing with wine and cheese tasting	
Dinner	

TUESDAY DECEMBER 8, 2015

2.00 5.30 DAIDS MARTIN DELANEY COLLABORATORY SATELLITE WORKSHOP

2.00 3.30 WELCOME AND HIGHLIGHTS FROM MARTIN DELANEY COLLABORATORY LEADERS

DefeatHIV (Delaney Cell and Genome Engineering Initiative)
Keith Jerome, Fred Hutchinson Cancer Research Center, Seattle, WA, USA

CARE (Collaboratory of AIDS Researchers for Eradication)
David Margolis, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

DARE (Delaney AIDS Research Enterprise)
Steven Deeks, University of California San Francisco, San Francisco, CA, USA

3.30 – 4.00 Coffee Break

4.00 5.30 PANEL DISCUSSIONS: CROSS-CUTTING CHALLENGES IN CURE RESEARCH

1. Industry Partnerships and Overcoming Barriers to Translational Research
Chair: John Mellor, University of Pittsburgh, Pittsburgh, PA, USA

Lynda Dee, CARE CAB/AIDS Action Baltimore, Baltimore, MD, USA
David Evans, DARE CAB/Project Inform, San Francisco, CA, USA
Romas Geleziunas, Gilead Sciences, Inc., Foster City, CA, USA
Bonnie Howell, Merck & Co., West Point, PA, USA
Jonathan Karn, Case Western Reserve University, Cleveland, OH, USA
David Margolis, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

2. ARVs and Optimizing Animal Models for Evaluation of HIV Cure Strategies
Chair: Guido Silvestri, Emory University, Atlanta, GA, USA

Janice Clements, Johns Hopkins University School of Medicine, Baltimore, MD, USA
J. Victor Garcia, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA
Hans Peters Kiem, Fred Hutchinson Cancer Research Center, Seattle, WA, USA
Jeff Lifson, National Cancer Institute, Frederick, MD, USA
Jeff Taylor, CARE CAB/AIDS Treatment Activists Coalition, Palm Springs, CA, USA

3.Clinical Trial Design: Appropriate Populations and Endpoints for Control vs. Eradication Studies
Chair: Jintanat Ananworanich, US Military HIV Research Program, Bethesda, MD, USA

Steven Deeks, University of California San Francisco, San Francisco, CA, USA
Daniel Kuritzkes, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA
Sharon Lewin, Doherty Institute, University of Melbourne, Melbourne, Australia
Timothy Schacker, University of Minnesota, Minneapolis, MN, USA
Matthew Sharp, MDC CAB Coordinator, San Francisco, CA, USA
Lynda Sylla, defeatHIV CAB, Seattle, WA, USA

5.30 Introduction Mario Stevenson, University of Miami Leonard School of Medecine, Miami - USA

5.40 7.00 OPENING CEREMONY

Carl Dieffenbach, Director of the NIAID, Division of AIDS, Bethesda - USA
Introduced by Karl Salzwedel, NIAID, Division of AIDS, Bethesda - USA

7.00 Welcome dinner

8.00 10.00 SESSION 1: IN VITRO AND IN VIVO MODELS OF HIV PERSISTENCE

Chairs: David Margolis, University of North Carolina, Chapel Hill - USA
Christian Schwartz, Institute of Parasitology and Tropical Diseases, Strasbourg - FRA

▶OP 1.0 HIV Persistence: to the periphery and beyond

Author: J. Victor Garcia Martinez, Div. of Infectious Diseases/UNC CFAR,
University of North Carolina at Chapel Hill, Chapel Hill, NC, United States of America

▶OP 1.1 Clones of SIV Infected Cells Are Present in Spleen and Lymph Nodes in Rhesus Macaques

Authors: S. H. Hughes[1], A. L. Ferris[1], G. Q. Del Prete[2], B. F. Keele[2], X. Wu[3], J. D. Lifson[2]
[1] HIV Dynamics and Replication Program, NCI- Frederick, Frederick, MD, United States of America
[2] Aids and Cancer Virus Program, Leidos Biomedical Research, Inc, Frederick, MD, United States of America
[3] Laboratory of Molecular Technology, Leidos Biomedical Research, Inc, Frederick, MD, United States of America

▶OP 1.2 Evaluation of HIV latency reversal using designed PKC modulators in humanized BLT mice

Authors: M.D. Marsden[1], X. Wu[1], B.A. Loy[2], B.A. DeChristopher[2], A.J. Schrier[2], C.M.R. Kitchen[1], E. Beans[2], D. Fournogerakis[2], C. Gauntlett[2], L. Heumann[2], R. Kramer[2], D. Murray[3], T.W. Chun[3], P.A. Wender[2], J.A. Zack[1].
[1] UCLA, Los Angeles, CA, United States of America
[2] Stanford University, Stanford, CA, United States of America
[3] National Institute of Allergy and Infectious Diseases, Bethesda, Maryland, United States of America

▶OP 1.3 Shining the RNA-Seq Microscope on Models of HIV Latency

Authors: C.H. Woelk [4**], C.H. White[1,2,*], A. Bosque[3,*], B. Moesker[4], C.A. Spina[1,5], D.D. Richman[1,2,5], N. Beliakova-Bethell[1,5] and V. Planelles[3,**]
[1] VA San Diego Healthcare System, San Diego, CA, United States of America
[2] Department of Pathology, University of California San Diego, La Jolla, CA, United States of America
[3] School of Medicine, University of Utah, Salt Lake City, UT, United States of America
[4] Faculty of Medicine, University of Southampton, Southampton, Hants, United Kingdom
[5] Department of Medicine, University of California San Diego, La Jolla, CA, United States of America
[*] First authors contributed equally to this abstract.
[**]Senior authors contributed equally to this abstract.

▶OP 1.4 In vivo suppression of SIV-mediated immune activation by a p38 MAPK inhibitor combined with ART

Authors: A. Aldovini[1], O. Chaudhary[1], V. Narayan[1] and R. Veazey[2]
[1] Boston Children's Hospital, Department of Medicine and Harvard Medical School, Department of Pediatrics, Boston MA, United States of America
[2] Tulane Primate Research Center, Tulane University, Covington, LA, United States of America

▶OP 1.5 Memory CD4+ T cell subsets show differential responses to HIV latency reversing agents

Authors: D.A. Kulpa[1], S. Yuan[2], A. Talla[3], A. G. Bebein-Blackwell[4], J. Brehm[5], R. Barnard[6], M. Miller[6], D. Hazuda[6], N. Chomont[7], and R.P. Sékaly[3]
[1] Southern Research Institute, Frederick, MD, United States of America
[2] Janssen Pharmaceuticals, Springhouse, PA, United States of America
[3] Case Western Reserve University, Cleveland, OH, United States of America
[4] University of Georgia, Athens, GA, United States of America
[5] GlaxoSmithKline, Raleigh, NC, United States of America
[6] Merck, West Point, PA, United States of America of America
[7] Université de Montréal, Montréal, QC, Canada

▶OP 1.6 Quantifying the Impact of Autologous Transplantation on Viral Reservoirs in a Nonhuman Primate Model of HIV/AIDS

Authors: C.W. Peterson[1], C. Benne[2], P. Polacino[3], A. Baldessari[4], R.D. Murnane[4], S.L. Hu[3], R. Sekaly[2], and H. Kiem[1,3]
[1] Fred Hutchinson Cancer Research Center, Seattle, WA, United States of America
[2] Case Western Reserve University, Cleveland, OH, United States of America
[3] University of Washington, Seattle, WA, United States of America
[4] Washington National Primate Research Center, Seattle, WA, United States of America

10.00 – 10.30 Coffee Break

10.30 12.30 SESSION 2: BASIC SCIENCE OF HIV LATENCY

Chairs: Jonathan Karn, Case Western Reserve University, Cleveland - USA
John Coffin, Tufts University School of Medicine, Boston - USA

▶OP 2.0 HIV-1 transcriptional latency in resting CD4 T-cell

Author: Monsef Benkirane, CNRS, Montpellier - FRA

▶OP 2.1 Single-cell analysis identifies biomarkers for HIV permissiveness

Authors: A. Ciuffi[1*], S. Quenneville[1*], A. Rausell[1,2*], S. Rato[1], M. Muñoz[1] and A. Telenti[3*]
[1] Institute of Microbiology, University of Lausanne, Lausanne, Switzerland
[2] Vital-IT group, SIB Swiss Institute of Bioinformatics, Lausanne, Switzerland
[3] J. Craig Venter Institute, La Jolla, CA, United States of America

▶OP 2.2 Cellular HIV RNA/DNA as Biomarkers of Inducible Virion Production

Authors: A. Cillo[1], F. Hong[1], A. Tsai[2], A. Irrinki[2], J. Kaur[2], J. Lalezari[3], D. Sloan[2], J. P. Murry[2], J. Mellors[1]
[1] University of Pittsburgh, Pittsburgh, PA, United States of America
[2] Gilead Sciences, Foster City, CA, United States of America
[3] Quest Clinical Research, San Francisco, CA, United States of America

▶OP 2.3 The HIV-1 antisense transcript AST is an inducer of viral latency

Authors: F. Romerio[1], J.C. Zapata[1], F. Kashanchi[2] and S. Iordanskyi[2]
[1] Institute of Human Virology, Baltimore, MD, United States of America
[2] George Mason University, Manassas, VA, United States of America

▶OP 2.4 Integration Site Analysis of Latently Infected Cell Lines: Evidence of Ongoing Replication

Authors: J. Symons[1], S.R. Lewin[1,5], , A. Chopra[2], E. Malantinkova[3], W. De Spiegelaere[3], S. Leary[2], D. Cooper[2], L. Vandekerckhove[3], S. Mallal[2,4] and P. Cameron[1,5]
[1] The Peter Doherty Institute for Infection and Immunity, The University of Melbourne, Melbourne, VIC, Australia
[2] Institute for Immunology and infectious diseases (IIID), Murdoch University, Perth, WA, Australia
[3] HIV Translational Research Unit, Department of Internal Medicine, Faculty of Medicine and Health Sciences, Ghent University and Ghent University Hospital, Ghent, Belgium
[4] Dept of Infectious Diseases, Vanderbilt University Nashville, United States of America
[5] Department of Infectious Diseases, Alfred Hospital and Monash University, Melbourne, Australia

▶OP 2.5 Mixed effects of HDACi on host gene expression and their implications for HIV reactivation from latency.

Authors: N. Beliakova-Bethell[1,2], A. Mukim[2], S. Deshmukh[2], C. H. White[3], C.H. Woelk[4], C.A. Spina[2,5]
[1] Department of Medicine, University of California San Diego, La Jolla, CA, United States of America
[2] VA San Diego Healthcare System, San Diego, CA, United States of America
[3] Graduate Program in Bioinformatics and Systems Biology, University of California San Diego, La Jolla, CA, United States of America
[4] Faculty of Medicine, University of Southampton, Southampton, Hants, United Kingdom
[5] Department of Pathology, University of California San Diego, La Jolla, CA, United States of America

▶OP 2.6 HIV-1 Latency is Established Preferentially in Minimally Activated and Non-Dividing Cells during Productive Infection of Primary CD4 T Cells

Authors: C.A. Spina[1,2], P. C. Soto[1,2], V. H. Terry[1] and M.K. Lewinski[3]
[1] Veterans Affairs San Diego Healthcare System, San Diego, CA, United States of America
[2] Department of Pathology, University of California San Diego, La Jolla, CA, United States of America
[3] Department of Medicine, University of California San Diego, La Jolla, CA, United States of America

12.30 – 2.00 Lunch

2.00 3.30 SESSION 3: VIROLOGY OF HIV PERSISTENCE

Chairs: Sarah Palmer, Westmead Millennium Institute and University of Sydney, Westmead - AUS
Jacques Izopet, INSERM, Toulouse - FRA

OP 3.0 The Virology of HIV-1 Persistence: integration, expansion, and expression
Author: John Coffin, Tufts University School of Medicine, Boston, MA, United States of America

OP 3.1 Developing and applying ultrasensitive p24 protein immunoassay for HIV latency
Authors: B.J. Howell , G. Wu, M. Swanson, M. Lu, D.J. Graham, J. Strizki, S. Wolkenberg, R.J.O. Barnard, W. Blair and D.J. Hazuda – Merck, West Point, NY, United States of America

OP 3.2 Detection and enrichment to near purity of rare HIV-1 infected cells by PrimeFlow RNA
Authors: F. Romerio, J.C. Zapata – Institute of Human Virology, Baltimore, MD, United States of America

OP 3.3 Sustained HIV Release By Single Persisting CD4+ T Cells During Latency Disruption
Authors: J.M. Hataye, J.P. Casazza, D.R. Ambrozak, E. Boritz, T. Yamamoto, D.C. Douek, A.S. Perelson, R.A. Koup - National Institutes of Healh, Vaccine Research Center, Bethesda, MD, United States of America

OP 3.4 Antiretroviral drug activity in macaque PrEP breakthrough infections has only a transient effect on cell-associated SHIV DNA reservoirs
Authors: J.G. García-Lerma, M.E Cong, C.P. Pau and W. Heneine – Centers for Disease Control and Prevention, Atlanta, GA, United States of America

OP 3.5 In Vivo Expression of Unspliced HIV RNA in Expanded CD4+T-Cell Clones Containing Defective or Replication-Competent Proviruses
Authors: M.F. Kearney[1], J. Spindler[1], M. Sobolewski[2], J.M. Coffin[3] and J.W. Mellors[2]
[1] HIV Dynamics and Replication Program, National Cancer Institute, Frederick, MD, United States of America
[2] University of Pittsburgh, Pittsburgh, PA, United States of America
[3] Department of Molecular Biology and Microbiology, Tufts University, Boston MA, United States of America

3.30 – 4.00 Coffee Break

4.00 5.30 SESSION 4: ANATOMIC AND NON-CD4 CELL RESERVOIRS

Chairs: Janice Clements, Johns Hopkins Medicine Institute, Baltimore - USA
Mario Stevenson, University of Miami Leonard School of Medicine, Miami - USA

OP 4.0 Tissue localization of human T cell responses
Author: Donna Farber, Columbia University Medical Center, New York, NY, United States of America

OP 4.1 Proliferation of perivascular macrophages in macaque models of lentiviral encephalitis: a potential mechanism for HIV/SIV persistence in the brain
Authors: W.K. Kim , A.R. Filipowicz, C.M. McGary, G.E. Holder and M.J. Kuroda
Eastern Virginia Medical School, Norfolk, VA, United States of America

▶OP 4.2 The human lung is a site of productive HIV infection during long term ART: novel tools to study ART-durable HIV reservoirs

Authors: D.W. Gludish[1], H.C. Mwandumba[2], K.C. Jambo[2], S. M. Amie[1] and D.G. Russell[1]
[1] Department of Microbiology and Immunology, College of Veterinary Medicine, Cornell University, Ithaca, NY, United States of America
[2] Malawi-Liverpool-Wellcome Trust Clinical Research Programme, University of Malawi, College of Medicine, Blantyre, Malawi

▶OP 4.3 Lymphatic and cancer tissues are a potential reservoir of replicating virus in virally suppressed ART + patients

Authors: R. Rose[1], S.L. Lamers[1], D.J. Nolan[1,2], M.S. McGrath[3]
[1] Bioinfoexperts, LLC, Thibodaux, Los Angeles, CA, United States of America
[2] Department of Pathology, Immunology, and Laboratory Medicine, Emerging Pathogens Institute, University of Florida, Gainesville, FL, United States of America
[3] The AIDS and Cancer Specimen Resource and the Department of Laboratory Medicine, Medicine and Pathology, University of California at San Francisco, San Fransisco CA, United States of America

▶OP 4.4 Immunological properties of testicular tissue as an anatomical reservoir in ART-treated HIV-infected adults

Authors: J.P. Routy[2,6], M.A. Jenabian[1], J. Brousseau[1], K. Vyboh[2], F.M. Ghazawi[1,3], P. Brassard[4], M. Bélanger[4], N. Chomont[5] and P. Ancuta[5]
[1] Department of Biological Sciences and BioMed Research Centre, Université du Québec à Montréal (UQAM), Canada
[2] Chronic Viral Illness Service and Research Institute, McGill University Health Centre, Montréal, QC, Canada
[3] Faculty of Medicine, McGill University, Montréal, QC, Canada
[4] Metropolitan Centre for Plastic Surgery, Montréal, QC, Canada
[5] Université de Montréal, Faculté de Médecine, Département of microbiologie, infectiologie et immunologie and Centre de recherche du CHUM, Montréal, QC, Canada
[6] Division of Hematology, McGill University Health Centre, Montréal, QC, Canada

▶OP 4.5 Persistence of HIV-infected alveolar macrophages after suppressive ART

Authors: F.F. Hong, H. Michael, S. Qin, L.A. Kingsley, D. D. McMahon, M.E. Fitzpatrick, A.M. Morris and J.W. Mellors - University of Pittsburgh, Pittsburgh, PA, United States of America

5.30 – 7.00 Poster viewing with wine & cheese tasting

8.00 10.00 SESSION 5: IMMUNOLOGY OF HIV PERSISTENCE

Chairs: Nicolas Chomont, CHUM Research Center, Montréal - CAN
Marie-Lise Gougeon, Pasteur Institute, Paris - FRA

▶ OP 5.0 Immune control of HIV reservoirs and cure therapeutic strategies

Author: Brigitte Autran, Pitié Salpêtrière Hospital – FRA

▶ OP 5.1 Long-term Spontaneous control of HIV-1 relates to low frequency of infected cells and inefficient viral reactivation

Authors: J.G. Prado[5*], N. Noel [1,2,3,4], R. Peña[5], A. David[6], V. Avettand-Fenoel[7,8], I. Erkizia[5], E. Jimenez[5], C.Lecuroux[1,3], C. Rouzioux [7,8], F. Boufassa[9], G. Pancino[10], A. Venet[1], C. Van Lint[11], J. Martinez-Picado[5,12,13], O. Lambotte[1,2,3,4], A. Sáez-Cirión[6*] and for the ANRS CO21 Cohort

[1] Université Paris Sud, UMR-1184, France
[2] CEA, DSV/iMETI, Division of Immuno-Virology, IDMIT, France
[3] Inserm, U1184, Center for immunology of viral infections and autoimmune diseases, France
[4] APHP, Service de Médecine Interne & Immunologie Clinique, Hôpitaux Universitaires Paris Sud, le Kremlin Bicêtre, France
[5] AIDS Research Institute -IrsiCaixa-, Institut d'Investigació en Ciències de la Salut Germans Trias i Pujol, Universitat Autónoma de Barcelona, Badalona, Spain
[6] Institut Pasteur, Unité HIV Inflammation et Persistance, Paris, France
[7] APHP, Hôpital Necker, Service de Virologie, Paris, France
[8] Université Paris Descartes, Sorbonne Paris Cité, Faculté de Médecine, EA7327, Paris, France
[9] INSERM U1018, Faculté de Médecine Paris Sud, Le Kremlin-Bicêtre, France
[10] Institut Pasteur, Unité de Régulation des Infections Rétrovirales, Paris, France
[11] Service de Virologie Moléculaire, IBMM, Université Libre de Bruxelles (ULB), Gosselies, Belgique
[12] Universitat de Vic, Barcelona, Spain
[13] Institució Catalana de Recerca i Estudis Avançats (ICREA), Barcelona, Spain
[*] Equal contributors

▶ OP 5.2 Differential Effects of HIV Latency Reversing Agents on T Cell Phenotype and Function: Implications for HIV Cure

Authors: G. Clutton, N. Archin, Y. Xu, D.M. Margolis, N. Goonetilleke - The University of North Carolina at Chapel Hill, Chapel Hill, NC, United States of America

▶ OP 5.3 CD8+ sensing relies on nanomolar levels of antigen presented upon HIV-1 reactivation

Authors: A. Ruiz[1], E. Jimenez[1], R. Peña[1], P. Goulder[2], B. Clotet[1] and J.G Prado[1]
[1] AIDS Research Institute IrsiCaixa, Hospital Universitari Germans Trias i Pujol, Badalona, Barcelona, Spain
[2] Department of Pediatrics, University of Oxford, Oxford, United Kingdom

▶ OP 5.4 Long-Lived Th17 Subsets Contribute to HIV-1 Persistence under ART

Authors: V.S. Wacleche[1,2], P. Ancuta[1, 2,*], J.P. Goulet[3], A. Gosselin[2], P. Monteiro[1,2], H. Soudeyns[1,4], M.A. Jenabian[5], S.G. Deeks[6], N. Chomont[1,2], and J.P. Routy[7,8]
[1] Université de Montréal, Faculté de Médecine, Département of microbiologie, infectiologie et immunologie, Montréal, QC, Canada
[2] Centre de recherche du CHUM, Montréal, QC, Canada
[3] Caprion, Montréal, QC, Canada
[4] Unité d'immunopathologie virale, Centre de recherche du CHU Sainte-Justine, Montréal, QC, Canada
[5] Département des sciences biologiques, Université du Québec, Montréal, QC, Canada
[6] Department of Medicine, University of California San Francisco, San Francisco, CA, USA
[7] Chronic Viral Illness Service and Research Institute, McGill University Health Centre, Montréal, QC, Canada
[8] Division of Hematology, McGill University Health Centre, Montréal, QC, Canada

▶OP 5.5 Uncovering mechanisms of HIV persistence in HIV controllers by HIV sequence analysis in CD4 T cell subsets

Authors: E. Boritz, S. Darko, F. Simonetti, D. Wells, X. Wu, L. Swaszek, G. Wolf, R. Hoh, A. Vostal, A. Ober, M. Hughes, D. Bunis, S. Migueles, J. Casazza, R. Koup, M. Connors, S. Moir, J. Martin, F. Maldarelli, S. Hughes, S. Deeks and D. Douek - Vaccine Research Center, NIAID, Bethesda, United States of America

▶OP 5.6 The Transcriptional Program Governed by RORgt Favors HIV-1 Replication in CCR4+CCR6+ Th17 Cells

Authors: V.S. Wacleche[1,2] , A. Cleret-Buhot[1,2], Y. Zhang [1,2], D. Planas[1,2], J.P. Goulet[3], P. Monteiro[1,2], J. Niessl[1,2], A. Gosselin[2], C. Tremblay[1,2], M.A. Jenabian[4], J.P. Routy[5,6,7], M. El-Far[2], N. Chomont[1,2], E.K. Haddad[8], R.P. Sekaly[9], P. Ancuta[1,2]

[1] Department of Microbiology, Infectiology and Immunology, Faculty of Medicine, Université de Montréal, QC, Canada
[2] CHUM-Research Centre, Montréal, QC, Canada
[3] Caprion, Montréal, QC, Canada
[4] Département des sciences biologiques, Université du Québec, Montréal, QC, Canada
[5] Chronic Viral Illness Service, McGill University Health Centre, Montréal, QC, Canada
[6] Research Institute, McGill University Health Centre, Montréal, QC, Canada
[7] Division of Hematology, McGill University Health Centre, Montréal, QC, Canada
[8] Drexel University, Division of infectious Diseases and HIV Medicine, Philadelphia, PA, United States of America
[9] Case Western Reserve University, Center for AIDS Research, Cleveland, OH, United States of America

▶OP 5.7 Latency reversing agents and cellular activation affect antigen processing in primary CD4 T cells

Authors: J. Boucau, J. Madouasse, D. Wambua, M.J. Berberich and S. Le Gall - The Ragon Institute of MGH, MIT and Harvard, Cambridge, MA, United States of America

10.00 – 10.30 Coffee Break

10.30 12.30 SESSION 6: PHARMACOLOGY OF HIV PERSISTENCE

Chairs: Guido Poli, San Raffaele University School of Medicine, Milano - ITA
Jean-Pierre Routy, McGill University, Montréal - CAN

▶OP 6.0 A Pharmacologic Basis for HIV Persistence

Author: Courtney Fletcher, University of Nebraska Medical Center, Omaha – USA

▶OP 6.1 A subset of infectious proviruses persist and expand following activation ex vivo

Authors: J.K. Bui[1,2], E. Halvas[1], E. Fyne[1], M.D. Sobolewski[1], D. Koontz[1], M.F. Kearney[3], W. Shao[4], F.F. Hong[1], J.W. Mellors[1]

[1] University of Pittsburgh, Department of Medicine, Pittsburgh, PA, United States of America
[2] Howard Hughes Medical Institute, Medical Research Fellows Program, Bethesda, WA, United States of America
[3] National Cancer Institute (NCI), HIV Dynamics and Replication Program, Frederick, MD, United States of America
[4] Leidos, Advanced Biomedical Computing Center, Frederick, MD, United States of America

▶OP 6.2 Lymphoid Tissue and Blood CD4 T Cells Respond Differently to Latency-Reversing Agents: Are We Testing the Right Cells?

Authors: W.C. Greene, A. Gramatica and M. Montano - Gladstone Institute of Virology and Immunology and the University of California, San Francisco, United States of America

▶OP 6.3 Role of Drug Transporters and Metabolic Enzymes in Antiretroviral Drug (ARV) Disposition in Testicular Tissue-Potential Contribution to HIV-1 Persistence

Authors: R. Bendayan , Y. Huang, S.K. Whyte, Md. T. Hoque, M.A. Jenabian, K. Vyboh, N. Sheehan, P. Brassard, M. Belanger, N. Chomont, C.V. Fletcher and J.P. Routy - University of Toronto, Leslie Dan Faculty of Pharmacy, Toronto, Canada

12.30 - 2.00 Lunch

2.00 3.30 SESSION 7: DRUG DISCOVERY

Chairs: Romas Geleziunas, Gilead Sciences Inc, Foster City - USA
Karl Salzwedel, NIAID, Division of AIDS, Bethesda - USA

▶OP 7.1 Approaches to Discover Latency Reversing Agents
Author: Daria Hazuda, Merck, Kenilworth, United Kingdom

▶OP 7.2 Gene editing CCR5 in HIV subjects CD4 T cells
Author: Dale Ando, CMO Sangamo BioSciences, Richmond, VA, United States of America

▶OP 7.3 Cyanotriazoles activate latent HIV and strongly synergize with proteasome inhibitors ex vivo in resting CD4 T cells from suppressed HIV+ donors
Authors: J. Murry, A. Tsai, M. Graupe, G. Jones, M. Tsiang, A. Arvey, L. Li, G. Stepan, H. Yu, T. Cihlar, D. Sloan – Gilead Sciences, Foster City, CA, United States of America

▶OP 7.4 Triazol-1-ol analogues as novel therapeutic leads towards reactivating and eradicating latent HIV-1 by manipulating SUMOylation of STAT5
Authors: A. Bosque[1], A. Macedo[1], A. Spivak[2], C.L. Novis[1], L.J. Martins[1], M. Szaniawski[1], N.M. Archin[3], P.A. Luciw[4], D.M. Margolis[3], V. Planelles[1]
[1] Department of Pathology, University of Utah, Salt Lake City, UT, United States of America
[2] Department of Medicine, University of Utah, Salt Lake City, UT, United States of America
[3] Division of Infectious Diseases, Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, United States of America
[4] Department of Pathology and Laboratory Medicine, School of Medicine, University of California at Davis, Davis, CA, United States of America

3.30 – 4.00 Coffee Break

4.00 5.30 SESSION 8: PRACTICAL ISSUES IN DESIGNING HIV CURE TRIALS

Chairs: David Margolis, University of North Carolina, Chapel Hill - USA
John Mellors, University of Pittsburgh, Pittsburgh - USA

▶OP 8.0 Challenges in Designing Clinical Trials in Cure Research
Author: Joseph Eron, University of North Carolina, Chapel Hill, NC, United States of America

▶OP 8.1 Real-Time Predictions of Reservoir Size and Rebound Time during Antiretroviral Therapy Interruption Trials for HIV
Authors: A.L. Hill[1], D.I.S. Rosenbloom[2], D.R. Kuritzkes[3], R.F. Siliciano[4], T.J. Henrich[5]
[1] Program for Evolutionary Dynamics, Harvard University, Cambridge, MA, United States of America
[2] Department of Biomedical Informatics, Columbia University Medical Center, New York, NY, United States of America
[3] Division of Infectious Diseases, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, United States of America
[4] Department of Medicine, Johns Hopkins University School of Medicine and Howard Hughes Medical Institute, Baltimore, MD, United States of America
[5] Division of Experimental Medicine, Department of Medicine, University of California, San Francisco, CA, United States of America

▶OP 8.2 The Importance of GPP Implementation in HIV Cure Research: Learning from Prevention
Authors: J. Handibode, S. Hannah – AVAC, New York, NY, United States of America

▶OP 8.3 Emerging Results of an Extensive Survey of Potential Participants' Willingness to Take Risks in and Donate to HIV Cure Research in the United States of America
Authors: J. Taylor[1], K. Dubé[1, 4], D. Evans[2], L. Sylla[3], A. Burton[1], A. Skinner[4], S. Greene[4]
[1] Collaboratory of AIDS Researchers for Eradication (CARE) Community Advisory Board (CAB), United States of America
[2] Delaney AIDS Research Enterprise (DARE) CAB, Chapel Hill, NC, United States of America
[3] DefeatHIV CAB, United States of America
[4] Health Policy and Management, University of North Carolina at Chapel Hill, NC, United States of America

5.30 – 7.00 Poster viewing with wine & cheese tasting

8.00 10.00 SESSION 9: NEW THERAPEUTIC APPROACHES 1

Chairs: José Gatell, University of Barcelona, Barcelona – SPA
Javier Martinez Picado, University Hospital "Germans Trias i Pujol", Barcelona - SPA

▶OP 9.0 Potential role for neutralizing antibodies in HIV-1 infection

Author: John Mascola, NIAID, Vaccine Research Center, Bethesda, MD, United States of America

▶OP 9.1 Targeting HIV Reservoir by DART Molecules That Recruit T Cells to HIV Env Expressing Cells: Comparison of HIV Arms Derived from Broadly Reactive Neutralizing or Non-Neutralizing Anti-Env Antibodies

Authors: J.L. Nordstrom[1], D.D. Sloan[2], C.Y. Kao Lam[1], A. Irrinki[2], L. Liu[1], A. Tsai[2], C.S. Pace[2], J. Kaur[2], J.P. Murry[2], M. Balakrishnan[2], P.A. Moore[1], S. Johnson[1], T. Cihlar[2] and S. Koenig[1]
[1] MacroGenics, Inc., 9640 Medical Center Drive, Rockville, MD, United States of America
[2] Gilead Sciences, 333 Lakeside Drive, Foster City, CA, United States of America

▶OP 9.2 CL572, a Potent Agonist of Toll-like Receptor 2/7, as a Novel Latency Reversing Agent

Authors: A. Macedo[1], C.M. Assis[1], C.L. Novis[1], A. Spivak[2], V. Planelles[1] and A. Bosque[1]
[1] Department of Pathology, University of Utah, Salt Lake City, UT, United States of America
[2] Department of Medicine, University of Utah, Salt Lake City, UT, United States of America

▶OP 9.3 HIV Conserved Region Vaccine in Early cART-Treated Subjects (BCN01): Impact on immunogenicity and the latent reservoir

Authors: S. Morón-López[1], B. Mothe[1,2,3], C. Manzardo[4], A. Sanchez-Bernabeu[1], P. Coll[1,2], M.C. Puertas[1], L. Dorrell[5], J.M. Miró[2], B. Clotet[1,2,3,6], C. Brander[1,3,6,7], J. Martinez-Picado[1,3,6,7] and T. Hanke[8] for the BCN01 study group
[1] IrsiCaixa AIDS Research Institute-HIVACAT, Badalona, Spain
[2] Fundació Lluita contra la Sida, Hospital Universitari Germans Trias i Pujol, Badalona, Spain
[3] Universitat de Vic-Central de Catalunya (UVic-UCC), 4Hospital Clinic-IDIBAPS, Barcelona, Spain
[5] The John Radcliffe Hospital, Oxford, United Kingdom
[6] Universitat Autònoma de Barcelona (UAB), Barcelona, Spain
[7] ICREA, Barcelona, 8The Jenner Institute, University of Oxford, Oxford, United Kingdom

▶OP 9.4 Antiviral therapy by targeting nanoparticles to CD4+ cells for the delivery of SIV-specific RNA-guided Cas9 nucleases

Authors: L. Giavedoni[2], L. Smith[1,2], E. Carnes[3,4], C. Lino[4], V. Hodara[2], K. Reimann[5] and L. Parodi[2]
[1] University of Texas Health Science Center, San Antonio, TX, United States of America
[2] Texas Biomedical Research Institute, San Antonio, TX, United States of America
[3] University of New Mexico, Albuquerque, NM, United States of America
[4] Sandia National Laboratories, Albuquerque, NM, United States of America
[5] University of Massachusetts Medical School, Boston, MA, United States of America

▶OP 9.5 Potent CTL Responses to Conserved Element of HIV to Improve Therapeutic DNA Vaccine Efficacy

Authors: B. K. Felber[1], A. Valentin[1], J.I. Mullins[2], and G.N. Pavlakis[1]
[1] National Cancer Institute at Frederick, Frederick, MD, United States of America
[2] University of Washington, Seattle, WA, United States of America

▶OP 9.6 Immune response to sequences surrounding the 12 protease cleavage sites generated during ARV treatment improved CD4 counts of SIVmac251 infected rhesus monkeys

Authors: M. Luo[1,2], D. Tang[1], J. Pinto[3], M. Nykoluk[1], P. Lacap[1], Jeff Tuff[1], R. Capina[1], Chris Czarnecki[1], J. Whitney[4], M. Alonso[3], T. Ball[2,5], G. Kobinger[2,6], P. Sandstrom[5] and F. Plummer[2,7]
[1] National Microbiology Laboratory, HIV Host Genetics/NHRL, Winnipeg, Canada
[2] University of Manitoba, Medical Microbiology, Winnipeg, Canada
[3] University of Santiago de Compostela, Santiago de Compostela, Spain
[4] Harvard Medical School, Beth Israel Deconess Medical Center, Boston, MA, United States of America
[5] National Microbiology Laboratory, NHRL, Winnipeg, Canada
[6] National Microbiology Laboratory, Special Pathogens, Winnipeg, Canada
[7] National Microbiology Laboratory, Winnipeg, Canada

▶OP 9.7 Elimination of HIV-1 Genomes from Human T-lymphoid Cells by CRISPR/Cas9 Gene Editing

Authors: K. Khalili[1,2], R. Kaminski[1,2], Y. Chen[1,2], T. Fischer[1,2], E. Tedaldi[2,3], A. Napoli[1,2], Y. Zhang[1,2], J. Karn[4] and W. Hu[1,2]

[1] Department of Neuroscience/Center for Neurovirology, Temple University School of Medicine, Philadelphia, PA, United States of America
[2] Comprehensive NeuroAIDS Center, Temple University School of Medicine, Philadelphia, PA, United States
[3] Department of Medicine, Temple HIV Program, Temple University School of Medicine, Philadelphia, PA, United States of America
[4] Department of Molecular Biology and Microbiology, Case Western Reserve University, Cleveland, OH, United States of America

10.00 – 10.30 Coffee Break

10.30 12.30 SESSION 10: NEW THERAPEUTIC APPROACHES 2

Chairs: Mark Wainberg, Jewish General Hospital, Montréal - CAN
Alain Lafeuillade, CHITS - Sainte Musse Hospital, Toulon - FRA

▶OP 10.0 The anti-inflammatory response and the HIV Cure

Author: Rafick Sekaly, Case Western Reserve University, Cleveland, United States of America

▶OP 10.1 Emergence of treatment-resistant infectious HIV after genome-directed antiviral endonuclease therapy

Authors: K.R. Jerome[1, 2, 3], D. Stone[1], H.S. De Silva Feelixge[1], P. Roychoudhury[1] and J.T. Schiffer[1, 5]

[1] Vaccine and Infectious Disease Division, Fred Hutchinson Cancer Research Center, Seattle, WA, United States of America
[2] Department of Laboratory Medicine, University of Washington, Seattle, WA, United States of America
[3] Department of Microbiology, University of Washington, Seattle, WA, United States of America
[4] Department of Biochemistry, University of Washington, Seattle, WA, United States of America
[5] Department of Medicine, University of Washington, Seattle, WA, United States of America

▶OP 10.2 The effects of combination of Ingenol-B and ART to SIV251 infected rhesus monkeys

Authors: G. dos Santos Goncalves[1], D. O'Connor[2], S. O'Connor[2] and A. Tanuri[1]

[1] Universidade Federal do Rio de Janeiro, Brazil
[2] University of Wisconsin-Madison, Madison, WI, United States of America

▶OP 10.3 Dendritic Cell induced "kick" of latent HIV-1 in vitro during cART

Authors: R.B. Mailliard[1], J. Kristoff[1], D. Ratner, M. Ding, J.M. Zerbato[2], N.D. Sluis-Cremer[2], P. Gupta[1] and C.R. Rinaldo[1]

[1] Department of Infectious Diseases and Microbiology, University of Pittsburgh, Pittsburgh, PA, United States of America
[2] Division of Infectious Diseases, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA, United States of America

▶OP 10.4 Peripheral blood lymphocytes from patients with chronic myeloid leukemia on treatment with Dasatinib are resistant to HIV-1 infection

Authors: M. Coiras[1], M. Bermejo[1], J. García-Pérez[1], J. Ambrosioni[2], J.M. Miró[2], M. Plana[3] and J. Alcamí[1]
[1] AIDS Immunopathology Unit, National Center of Microbiology, Instituto de Salud Carlos III, Madrid, Spain
[2] Infectious Diseases Service, AIDS Research Group, Institut d´Investigacions Biomèdiques August Pi I Sunyer (IDIBAPS), Hospital Clínic, University of Barcelona, Barcelona, Spain
[3] Retrovirology and Viral Immunopathology Laboratory, AIDS Research Group, Institut d´Investigacions Biomèdiques August Pi I Sunyer (IDIBAPS), Hospital Clínic, University of Barcelona, Barcelona, Spain

▶OP 10.5 Restricted HIV-1 Diversity and Clonal Expansion Following Cytoreductive Chemotherapy

Authors: T.J. Henrich[1,2], E.P. Scully[3], K.S. Hobbs[1,2], E. Hanhauser[1,2], L.E. Hogan[1,2], C.D. Palmer[3], Y.P. Robles[1], K.S. Leadabrand[2], A.S. LaCasce[4], D.R. Kuritzkes[1]
[1] Brigham and Women's Hospital, Boston, MA, United States of America
[2] University of California San Francisco, San Francisco, CA, United States of America
[3] Ragon Institute of MGH, MIT and Harvard, Boston, MA, United States of America
[4] Dana-Farber Cancer Center, Boston, MA, United States of America

▶OP 10.6 Dual-Affinity Re-Targeting (DART) proteins overcome viral diversity to deplete the latent HIV-1 Reservoir

Authors: J.M. Sung, J. Pickeral, M. Bednar, L. Liu, S.A. Stanfield-Oakley, J. Pollara, C. LaBranche, M.A. Moody, M. Bonsignori, C.Y. Kao Lam, S. Johnson, C. Garrido, N. Archin, J. Kuruc, M. Cohen, K. Soderberg, H.X. Liao, D. Montefiori, R. Swanstrom, S. Koenig, J. Nordstrom, B.F. Haynes, G. Ferrari, D. Margolis – UNC Chapel Hill, Chapel Hill, United States of America

▶OP 10.7 Human Galectin-9 is a Potent Mediator of HIV Transcription and Reactivation

Authors: M. Abdel-Mohsen[1,2], L. Chavez[1], G. M. Chew[3], X. Deng[1], A. Danesh[1,2], S. Keating[1], R. Hoh[2], S.G. Deeks[2], L.C. Ndhlovu[3] and S.K. Pillai[1,2]
[1] Blood Systems Research Institute, San Francisco, CA, United States of America
[2] University of California, San Francisco, United States of America
[3] University of Hawaii, Hawaii Center for AIDS, John A. Burns School of Medicine, Honolulu, HI, United States of America

12.30 CLOSING CEREMONY

Alain Lafeuillade, CHITS - Sainte Musse Hospital, Toulon - FRA
David Margolis, University of North Carolina, Chapel Hill, NC - USA
Karl Salzwedel, NIAID, Division of AIDS, Bethesda, MD - USA
Mario Stevenson, University of Miami Leonard School of Medicine, Miami, FL - USA

SESSION 1: IN VITRO AND IN VIVO MODELS OF HIV PERSISTENCE

▶PP 1.0 Characterization of humanized NSG mice to evaluate latency
Authors: S. Satheesan, L. Haitang, J. Burnett, J. Rossi – City of Hope, Duarte, United States of America

▶PP 1.1 Ex vivo determination of stem cell transplantation graft-versus-HIV reservoir effects
Authors: L.E. Hogan, K.S. Hobbs, D.R. Kuritzkes, J. Ritz, T.J. Henrich – UCSF, San Francisco, CA United States of America

▶PP 1.2 NNRTIs Reduce HIV-1 Production from Latently Infected Resting CD4+ T cells
Authors: J. Zerbato and N. Sluis-Cremer - Department of Medicine, Division of Infectious Diseases, University of Pittsburgh, Pittsburgh, PA, United States of America

▶PP 1.3 Towards Achieving a State of Reversible HIV-1 Latency in Primary Monocyte-Derived Macrophages (MDM) by M1 Polarization
Authors: G. Poli, F. Graziano and E. Vicenzi - San Raffaele University and Scientific Institute, Milan, Italy

▶PP 1.4 Co-culture of T-cells with dendritic cells facilitates HIV latency in proliferating CD4+ T-cells: implications for the establishment and reversal of latency
Authors: N. Kumar, R.M. van der Sluis, T. Mota, V.A. Evans, S.R. Lewin and P.U. Cameron - University of Melbourne, Melbourne, Australia

▶PP 1.5 Reactivation of VOA-inducible and -uninducible HIV-1 proviruses using immune-compromised mice engrafted with human resting CD4+ T cells
Authors: Z. Yuan[1, 2], G. Kang[1, 2], W. Lu[1, 2], Q. Li[1, 2]

[1] Nebraska Center for Virology, University of Nebraska-Lincoln, Lincoln, NE, United States of America
[2] School of Biological Sciences, University of Nebraska-Lincoln, Lincoln, NE, United States of America

SESSION 2: BASIC SCIENCE OF HIV LATENCY

▶PP 2.1 HIV-1 silencing mediated by TRIM22 inhibition of Sp1 binding to the promoter
Authors: E. Vicenzi[1], F. Turrini[1], S.S. Marelli[1], A. Kajaste-Rudnitski[1] , C. Van Lint[2], A.T. Das[3], B. Berkout[3] and G. Poli[1]

[1] San Raffaele Scientific Institute, Milan, Italy
[2] University of Bruxelles, Gosselies, Belgium
[3] Center for Infection and Immunity Amsterdam, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands

▶PP 2.2 Viral counteractions against CTIP2 in HIV-1 permissive cells
Authors: F. Forouzanfar, S. Ali, V. Le Douce, M. El Maasarrani, A. Aït-Amar, A. Janossy, E. Candolfi, F. Margottin-Goguet, C. Van Lint, C. Schwartz and ROHR O - University of Strasbourg, EA7292 DHPI, Institute of Parasitology and Tropical Pathology of Strasbourg, Strasbourg France

▶PP 2.3 The Unique Enrichment of Histone Modifications and Its Relationship with HIV-1 Latency in Some Chromosomes
Authors: K.C. Kim[1], H. Lim[1], J. Park[2], T.Y. Roh[2,3], C. Kang[1] and B.S. Choi[1]

[1] Division of AIDS, Center for Immunology and Pathology, Korea National Institute of Health, Chung-buk, Republic of Korea
[2] Department of Life Sciences, Pohang University of Science and Technology, Pohang, Republic of Korea
[3] Division of Integrative Biosciences and Biotechnology, Pohang University of Science and Technology, Pohang, Republic of Korea

PP 2.4 Exosomes from HIV-1 infected cells stimulate production of pro-inflammatory cytokines through TAR RNA.

Authors: G.C. Sampey[1], M. Saifuddin[1], A. Schwab[1], R. Barclay[1], S. Punya[1], M.C. Chung[1], R.M. Hakami[1], M. Asad Zadeh[1], B. Lepene[2], Z.A. Klase[3], N. El-Hage[4], M. Young[5], S. Iordanskiy[1], F. Kashanchi[1]

[1] Laboratory of Molecular Virology, George Mason University, Manassas, VA, United States of America
[2] Ceres Nanosciences Inc., Manassas, VA, United States of America
[3] Laboratory of Molecular Microbiology, National Institute of Allergy and Infectious Diseases, Bethesda, MD, United States of America
[4] Department of Immunology, Herbert Wertheim College of Medicine, Miami, FL, United States of America
[5] Department of Medicine, Women's Intra-Agency HIV Study, Georgetown University, Washington, DC, United States of America

PP 2.5 Ingenol derivatives are potent reactivators of latent HIV

Authors: V. Planelles, A.M. Spivak, E.T. Larragoite, C.L. Novis, L.J. Martins and A. Bosque - Division of Microbiology and Immunology, Department of Pathology, University of Utah, Salt Lake City, UT, United States of America

PP 2.6 LEDGF/p75 and Iws1 participate both cooperatively and independently to distinct steps of HIV transcription

Authors: S. Emiliani, A. Abdouni, M. Hamoudi, M. Naughtin, A. Gérard and E. Ségéral - INSERM, U1016, Institut Cochin, CNRS, UMR8104, Université Paris Descartes, Sorbonne Paris Cité, Paris, France

PP 2.7 Constraints on the dynamics of HIV-1 lifecycle elucidated by treatment with an integrase inhibitor reveal a subset of cells with very slow integration

Authors: R.M. Ribeiro, F. Cardozo and A.S. Perelson - Los Alamos National Laboratory, Los Alamos, United States of America

PP 2.8 The Steroid Receptor Coactivators are Targets for Reactivation of HIV Latency

Authors: B.C. Nikolai[1], Q.Feng[1], R.B. York[1], C.E. Foulds[1], E.B. Siwak[2], D.M. Lonard[1], A.P. Rice[2] and B.W. O'Malley[1]

[1] Department of Molecular and Cell Biology, Baylor College of Medicine, Houston, TX, United States of America
[2] Department of Molecular Virology and Microbiology, Baylor College of Medicine, Houston, TX, United States of America

SESSION 3: CLINICAL VIROLOGY OF HIV PERSISTENCE

PP 3.0 Allogeneic Stem Cell Transplantation in HIV-1 Infected Individuals

Authors: A.M.J. Wensing[1], J.L. Diez Martin[2], G. Hutter[3], J. Kuball[1], M. Nijhuis[1], A. Saez-Cirion[4], V. Rocha[5], J. Schulze zur Wiesch[6] and J. Martinez-Picado[7,8]

[1] University Medical Center Utrecht, Utrecht, the Netherlands
[2] Hospital Gral. Univ. Gregorio Marañon, Madrid, Spain
[3] Cellex, Dresden, Germany
[4] Pasteur Institute, Paris, France
[5] Oxford University Hospital, Oxford, United Kingdom
[6] University Medical Center Hamburg-Eppendorf, Hamburg, Germany
[7] Hospital AIDS Research Institute irsiCaixa, Badalona, Spain
[8] ICREA, Barcelona, Spain

PP 3.1 Genetic and Functional characterization of HIV-1 Nef gene from North Indian HIV-1 infected patients

Authors: J. Singh, R. Kapoor, I. Ronsard, V.G. Ramachandran, A.C. Banerjea – National Institute of Immunology, New Dehli, India

PP 3.2 The Synergistic Effect of PKA Activator and HDAC Inhibitor to Reactivate HIV-1 Provirus from Latently Infected Cells

Authors: B.S. Choi, H. Lim, K.C. Kim, Y. Shin, C.H. Yoon, C. Kang - Division of AIDS, Center for Immunology and Pathology, Korea National Institute of Health, Chung-buk, Republic of Korea

▶PP 3.3 Mild cognitive impairment in a clinically latent HIV-1 patient population

Authors: K.N. Devlin[1], T. Giovannetti[1], W. Dampier[2,3,4], V. Pirrone[2,3], M.R. Nonnemacher[2,3], E. Schell[1], C. Lamberson[1], J.R. Kurczewski[1], J.M. Jacobson[5,6], D.J. Libon[7], and B. Wigdahl[2,3,5]

[1] Department of Psychology, Temple University, Philadelphia, PA, United States of America
[2] Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, United States of America
[3] Center for Molecular Virology and Translational Neuroscience, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[4] School of Biomedical Engineering, Science and Health Systems, Drexel University, Philadelphia, PA, United States of America
[5] Center for Clinical and Translational Medicine, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[6] Division of Infectious Diseases and HIV Medicine, Department of Medicine, Drexel University College of Medicine, Philadelphia, PA, United States of America
[7] Department of Neurology, Drexel University College of Medicine, Philadelphia, PA, United States of America

▶PP 3.4 Towards HIV reservoir measurements in ART-treated patients: integrated DNA quantification and HIV-1 clone expansion in a Japanese cohort

Authors: K. Stanoeva[1], A. Fukuda[1], A. König[2], Y. Satou[1,*] and S. Matsushita[1,*]

[1] Center for AIDS Research, Kumamoto University, Kumamoto, Japan
[2] Faculty of Statistics, Technical University Dortmund, Germany
[*] contributed equally

▶PP 3.5 Significance of a novel residual HIV-1 variant longitudinally detected in plasma of a patient on suppressive antiretroviral therapy

Authors: G.K. Sahu, S. Rassler, N. Khoury and G. Skowron - Division of Infectious Diseases, Dept. of Medicine, Roger Williams Medical Center, Providence, RI, United States of America

▶PP 3.6 Impact of a decade of sustained antiretroviral therapy started during HIV-1 seroconversion on blood and gut reservoirs

Authors: S. Kinloch[1], E. Malatinkova[2], W. De Spiegelaere[2], P. Bonczkowsk[2], M. Kiselinova[2], K. Vervisch[2], W. Trypsteen[2], M. Johnson[1], D. de Looze[2] and L. Vandekerckhove[2]

[1] Royal Free Hospital, Division of Infection and Immunity, Royal Free Campus, University College London, London, United Kingdom
[2] HIV Translational Research Unit, Department of Internal Medicine, Faculty of Medicine and Health Sciences, Ghent University and University Hospital Ghent, Ghent, Belgium.

▶PP 3.8 SNPs within the HIV-1 LTR associate with increased virus persistence

Authors: N.T. Sullivan[1,2], M.R. Nonnemacher[1,2], V. Pirrone[1,2], R. Feng[3], B. Moldover[4], W. Dampier[1,2], S. Passic[1,2], J. Williams[1,2], B. Aiamkitsumrit[1,2], W. Zhong[1,2], B. Blakey[1,2], S. Shah[1,2], J. M. Jacobson[1,2,5,6] and B. Wigdahl[1,2,5]

[1] Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, United States of America
[2] Center for Molecular Virology and Translational Neuroscience, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[3] Department of Biostatistics and Epidemiology, Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, PA, United States of America
[4] B-Tech Consulting, Ltd., Philadelphia, PA, United States of America
[5] Center for Clinical and Translational Medicine, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[6] Division of Infectious Disease and HIV Medicine, Department of Medicine, Drexel University College of Medicine, Philadelphia, PA, United States of America

▶PP 3.9 Detection of Replication Competent HIV from Latently Infected CD4+ T Cells

Authors: A. Fun, M.R. Wills and A.M.L. Lever - Department of Medicine, University of Cambridge, United Kingdom

PP 3.10 Low Viral Reservoir Treated patients (LoViReT): clinical predictors of low HIV-1 DNA

Authors: M. Salgado[1], C. Gálvez[1], J. Dalmau[1], J. Carrillo[1], V. Urrea[1], B. Clotet[1,2,3], J. Blanco[1,3], J. Martinez-Picado[1,4]

[1] AIDS Research Institute irsiCaixa, Badalona, Spain
[2] Fundació Lluita contra la SIDA, Badalona, Spain
[3] Universitat de Vic-Central de Catalunya, UVIC-UCC, Vic, Spain
[4] ICREA, Barcelona, Spain

PP 3.11 Population Genetic Approaches to Estimating the Size of the HIV Reservoir

Authors: J. Hattori[1], V. Boltz[1], W. Shao[2], M. Kearney[1], F. Maldarelli[1]

[1] HIV Drug Resistance Program, National Cancer Institute, Frederick, MD, United States of America
[2] Leidos Biomedical Research, Frederick, MD, United States of America

PP 3.12 Cell-associated HIV-1 DNA and viral load evaluation in HIV-1 infected children before and after combination antiretroviral therapy initiation

Authors: M. Moragas, P. Aulicino, D. Mecikovsky, R. Bolgna, L. Sen, A. Mangano - Hospital de Pediatría S.A.M.I.C. «Prof. Dr. Juan P. Garrahan», Buenos Aires, Argentina

PP 3.13 Post-mortem analysis of HIV-1 Reservoir after Allogeneic Transplantation using Stem Cells with a nonfunctional CCR5 (CCR5Δ32) co-receptor

Authors: M. Nijhuis[1], A. Bruns[1], M. Salgado[2], A.J. Stam[1], P.M. Ellerbroek[1], K. Tesselaar[1], P. van Ham[1], T.C.M. de Jong[1], G. Hutter[3], S.S. Zeerleder[4], J.T. van der Meer[4], L.L.A. Brosens[1], J. Martinez-Picado[2,5], J. Kuball[1], A.M.J. Wensing[1] for the EpiStem consortium

[1] University Medical Center Utrecht, Utrecht, the Netherlands
[2] AIDS Research Institute irsiCaixa, Badalona, Spain
[3] Cellex, Dresden, Germany
[4] Academic Medical Center, Amsterdam, The Netherlands
[5] ICREA, Barcelona, Spain

PP 3.14 HIV Antibodies as Markers of HIV Systemic Reservoir and Replication Activity

Authors: S.M. Keating, V. Jain, S.G. Deeks, C.D. Pilcher, M.P. Busch - Blood Systems Research Institute, CA, United States of America, Department of Laboratory Medicine, University California San Francisco, CA, United States of America, Department of Medicine, UCSF, CA, United States of America

PP 3.15 Ultradeep Sequencing Characterization of HIV-1 Diversity in Primary Infection

Authors: C. Delaugerre, G. Gaube, M. Salmona, S. Gallien and M.L. Chaix - Hôpital Saint Louis, Inserm U941, Paris, France

PP 3.16 Correlation between HIV-2 RNA and HIV-2 total DNA levels

Authors: C. Charpentier[1,3], M. Bertine[1,3], G. Collin[1,3], F. Damond[1,3], V. Avettand-Fenoel[4], J.C. Plantier[5], A. Storto[1], M. Naudin[6], S. Matheron[1,2,7], D. Descamps[1,3], and the HIV-2 ANRS CO5 Cohort

[1] INSERM, IAME, UMR 1137, Paris, France
[2] Université Paris Diderot, IAME, UMR 1137, Sorbonne Paris Cité, Paris, France
[3] AP-HP, Hôpital Bichat-Claude Bernard, Laboratoire de Virologie, Paris, France
[4] Université Paris Descartes, Sorbonne Paris Cité, Faculté de Médecine, EA 7327, Paris, France Assistance Publique-Hôpitaux de Paris, Service de Virologie, Hôpital Necker-Enfants Malades, Paris, France
[5] Laboratoire de Virologie, CHU Charles Nicolle, Rouen, France, EA 2656 GRAM, Université de Rouen, Rouen, France, Laboratoire associé au Centre National de Référence du VIH, CHU Charles Nicolle, Rouen, France
[6] INSERM, ISPED, Centre INSERM U897-Epidemiologie-Biostatistique, Bordeaux, France Université Bordeaux, France
[7] AP-HP, Hôpital Bichat-Claude Bernard, Service de Maladies Infectieuses et Tropicales, Paris, France

▶PP 3.17 Integrated and total HIV-1 DNA can predict quantitative viral outgrowth in long term ART treated patients

Authors: W. De Spiegelaere[1], M. Kiselinova[1], M.J. Buzon[2,3], E. Malatinkova[1], M. Lichterfeld[2,3] and L. Vandekerckhove[1]

[1] HIV Translational Research Unit (HTRU), Department of Internal Medicine, University and University Hospital Ghent, Ghent, Belgium
[2] Infectious Disease Division, Massachusetts General Hospital, Boston, MA, United States of America
[3] Ragon Institute of MGH, MIT and Harvard, Boston, MA, United States of America

▶PP 3.18 A theoretical framework to guide clinical trial design to estimate efficacies of latency reversing agents

Authors: R. Ke[1], J.M. Conway[2], A.S. Perelson[3]

[1] Department of Mathematics, North Carolina State University, United States of America
[2] Department of Mathematics, Pennsylvania State University, United States of America
[3] Theoretical Biology and Biophysics (T-6), Los Alamos National Laboratory, United States of America

▶PP 3.19 Evidence of ongoing HIV replication during suppressive antiretroviral therapy

Authors: L. Bertoni Giron[1,2], S. Tenore[1], M.C. Araripe Sucupira[1], L.M. Janini,[1] S. Pillai[2] and R. Sobhie Diaz[1]

[1] Federal University of São Paulo, São Paulo, SP, Brazil
[2] Blood Systems Research Institute, San Francisco, CA, United States of America

▶PP 3.20 Peripheral Blood CD4+ T cells and Intestinal Lamina Propria Mononuclear Cells Contribute to Viremia Following an Analytical Treatment Interruption: A Follow-up Analysis of the Panobinostat Trial

Authors: K. Barton[1], B. Hiener[1], A. Winckelmann[1,2], T. Aagaard Rasmussen[2], M. Tolstrup[2], W. Shao[3,4], R. Olesen[2], P.W. Denton[2], A. Solomon[5], L. Østergaard[2], S.R. Lewin[5, 6], , O. Schmeltz Søgaard[2] and S. Palmer[1]

[1] Centre for Virus Research, Westmead Millennium Institute, Westmead, Australia
[2] Department of Infectious Diseases, Aarhus University Hospital, Denmark
[3] Advanced Biomedical Computing Center, Leidos Biomedical Research, Inc, United States of America
[4] Frederick National Laboratory for Cancer Research (FNLCR), Frederick, MD, United States of America
[5] Doherty Institute for Infection and Immunity, The University of Melbourne, Melbourne
[6] Department of Infectious Diseases, Alfred Hospital, Monash University, Melbourne, Australia

▶PP 3.21 Duplex Droplet Digital PCR to Study the Composition of HIV-DNA in Blood Cells

Authors: F.R. Simonetti, P. Cattaneo, A. Lai, S. Gioffrè, C. Balotta -Department of Biomedical and Clinical Sciences Luigi Sacco, University of Milan, Milan, Italy

▶PP 3.22 Diversity changes in blood HIV-1 DNA reservoir after combination of chemotherapy and autologous hematopoietic stem cell transplantation for lymphoma

Authors: H. Delagreverie[1,2], M. Salmona[1,2], L. Gerard[3], E. Oksenhendler[3] and C. Delaugerre[1,2]

[1] Laboratoire de Virologie, Hôpital Saint Louis, APHP, Université Paris Diderot, Paris, France
[2] INSERM UMR941, Université Paris Diderot, Paris, France
[3] Immunopathologie Clinique, Hôpital Saint Louis, APHP, Université Paris Diderot, Paris, France

▶PP 3.23 HIV-1 mediated insertional activation of STAT5B promotes the formation of a viral reservoir in T regulatory cells

Authors: D. Cesana[1], F.R. Santoni de Sio[1], L. Rudilosso[1], P. Gallina[1], A. Calabria[1], L. Passerini[1], S. Nozza[2], E.Vicenzi[3], G. Poli[3], G. Tambussi[2] and E. Montini[1]

[1] San Raffaele Telethon Institute for Gene Therapy (HSR-TIGET), San Raffaele Scientific Institute, Milan, Italy
[2] Department of Infectious Diseases, S. Raffaele Scientific Institute, Milan, Italy
[3] AIDS Immunopathogenesis Unit, San Raffaele Scientific Institute, Milan, Italy

▶PP 3.24 Diverse Proviral Structure of HIV Integrants in Clonally Expanded Cells

Authors: F.R. Simonetti[1,2], J. Spindler[1], X. Wu[3], F. Maldarelli[1], J.M. Coffin[4]

[1] HIV Drug Resistance Program, National Cancer Institute, National Institutes of Health, Frederick, MD, United States of America
[2] Department of Biomedical and Clinical Sciences Luigi Sacco, University of Milan, Milan, Italy
[3] Leidos Biomedical Research, Frederick, MD 21702, United States of America
[4] Tufts University, Department of Molecular Biology and Microbiology, Boston, MA, United States of America

▶PP 3.25 No selection of CXCR4-using variants in cell reservoirs of dual-mixed HIV infected patients receiving suppressive maraviroc therapy

Authors: J. Izopet[1,2,3], S. Raymond[1,2,3], F. Nicot[1,3], N. Jeanne[3], P. Delobel[1,2,4] and the ANRS 145 MARIMUNO Study group

[1] INSERM, U1043, Toulouse, F-31300 France
[2] Université Toulouse III Paul-Sabatier, Faculté de Médecine Toulouse-Purpan, Toulouse, France
[3] CHU de Toulouse, Hôpital Purpan, Laboratoire de Virologie, Toulouse, France
[4] CHU de Toulouse, Hôpital Purpan, Service des Maladies Infectieuses et Tropicales, Toulouse, France

SESSION 4: ANATOMIC AND NON-CD4 CELL RESERVOIRS

▶PP 4.1 Levels of SAMHD1 and Natural Ribonucleotides May Alter Anti-HIV Potency of Antiretroviral Agents in Primary CD4+ CCR5+ Placental Macrophages

Authors: C. Gavegnano[1,2], E. L. Johnson[1], S. Tao,[1] A. Santos,[1] R.F. Schinazi,[1,2] and R. Chakraborty[1]

[1] Center for AIDS Research, Department of Pediatrics, Emory University School of Medicine, Atlanta, GA, United States of America
[2] Veterans Affairs Medical Center, Atlanta, GA, United States of America

▶PP 4.2 Immune activation in successfully treated patients with HIV-associated neurocognitive disorders: difference according to the severity of the impairment

Authors: M. Vassallo, J. Durant, R. Fabre, F. DeSalvador, C. Lebrun-Frenay, M. Laffon, M. Ticchioni, J. Cottalorda, P. Dellamonica and C. Pradier - Cannes General Hospital, Cannes, France

▶PP 4.3 Asymptomatic Cerebrospinal Fluid Viral Escape During ART is Associated with Increased Intrathecal Immune Activation

Authors: A. Eden[1], S. Nilsson[2], L. Hagberg[1], D. Fuchs[3], H. Zetterberg[1], 4, B. Svennerholm[1] and M. Gisslen[1]

[1] Department of Infectious Diseases, Institute of Biomedicine, Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden
[2] Mathematical Sciences, Chalmers University of Technology, Gothenburg, Sweden
[3] Division of Biological Chemistry, Biocenter, Innsbruck Medical University, Innsbruck, Austria
[4] Institute of Neurology, University College London, London, United Kingdom

▶PP 4.4 HIV isolated from CSF cells of a virologically controlled patient infects astrocytes

Authors: G.H. Li, R. Traslavina, B. Smith, L. Henderson, S. Steinbach and A. Nath - Section of Infections of the Nervous System, NINDS, NIH, Bethesda, MD, United States of America

▶PP 4.5 CCR5- and CXCR4-tropic HIVs infect CD4+ hematopoietic stem and progenitor cells in vitro and in optimally treated people

Authors: N. Sebastian[1,2], V. Terry[3], F. Taschuk[3], L.A. McNamara[4], A. Onafuwa-Nuga[3], J. Riddell IV[3], D. Bixby[3], and K.L. Collins[1,3,4]

[1] Cellular and Molecular Biology Graduate Program, University of Michigan Medical School, United States of America
[2] Medical Scientist Training Program, University of Michigan Medical School, United States of America
[3] Department of Internal Medicine, University of Michigan Medical School, United States of America
[4] Department of Microbiology and Immunology, University of Michigan Medical School, United States of America

▶PP 4.6 Most Tissues of a Plasma-Negative HIV Autopsy Cohort Contain HIV DNA and Many Exhibit Tissue Pathology

Authors: R. Rose[1], S. Lamers[1], D. Garcia[2], E. Singer[3], M.S. McGrath[2]

[1] Bioinfoexperts, LLC, Thibodaux, LA, United States of America
[2] The AIDS and Cancer Specimen Resource and The University of California, San Francisco, CA, United States of America
[3] The National Neurological AIDS Bank and the Department of Neurology, University of California Los Angeles, David Geffen School of Medicine, Los Angeles, CA, United States of America

▶PP 4.7 Hematopoietic Stem and Progenitor Cells Harbor Provirus with Identical Gag and V3 Sequences as Residual Plasma Virus in Optimally Treated Patients

Authors: V.H. Terry[1], N.T. Sebastian[2,3], R. Yucha[1], F. Taschuk[1], L.A. McNamara[4],A. Onafuwa-Nuga[1], J. Riddell IV[1], D. Bixby[1], K.L. Collins[1,2,4]

[1] Department of Internal Medicine, University of Michigan Medical School, Ann Arbor, MI, United States of America
[2] Cellular and Molecular Biology Graduate Program, University of Michigan Medical School, Ann Arbor, MI, United States of America
[3] Medical Scientist Training Program, University of Michigan Medical School, Ann Arbor, MI, United States of America
[4] Department of Microbiology and Immunology, University of Michigan Medical School, Ann Arbor, MI, United States of America

SESSION 5: IMMUNOLOGY OF HIV PERSISTENCE

▶PP 5.0 Modulations in key defense responses of epithelial cells during co-stimulation with BCG and HIV-Nef

Authors: S. Mehto, D. Sharma, N. Gautam, S. Jameel, K. Natarajan – University of Dehli, New Delhi, India

▶PP 5.1 HIV alters the profile of cytokines responding to seasonal influenza vaccination

Authors: L. González, M. Roach, C. Sánchez-Mora, V. George, L. de Armas, R. Pahwa, G. Dickinson, M. Fischl, S. Pallikkuth, S. Pahwa - University of Miami Miller School of Medicine, Miami, United States of America

▶PP 5.3 Administration of panobinostat is associated with increased IL-17A mRNA in the intestinal epithelium of HIV-1 patients

Authors: A. Bjerg Christensen[1], A. Dige[2], J. Randel Nyengaard[3,4], J. Agnholt[2,3] and P.W. Denton[1,3,5]

[1] Department of Infectious Diseases, Aarhus University Hospital, Skejby, Denmark
[2] Department of Hepatology and Gastroenterology, Aarhus University Hospital, Aarhus, Denmark
[3] Department of Clinical Medicine, Aarhus University, Denmark
[4] Stereology and Electron Microscopy Laboratory, Centre for Stochastic Geometry and Advanced Bioimaging, Aarhus University Hospital, Aarhus, Denmark
[5] Aarhus Institute for Advanced Studies, Aarhus University, Denmark

▶PP 5.4 Molecular Profiling of Antigen-specific peripheral T follicular helper cells from HIV-infected donors using Influenza Vaccination model

Authors: L. de Armas, N. Cotugno, L. Pan, S. Pallikkuth and S. Pahwa - University of Miami, Miami, United States of America

▶PP 5.5 Pathogenicity of CD16+ Monocyte-Derived Dendritic Cells during HIV-1 Infection

Authors: P. Ancuta[1,2], V. Wacleche[1,2], J.P. Goulet[3], A. Gosselin[2], M.C. Gaudreau[1,2] and J.P. Routy[4,5]

[1] Université de Montréal, Faculty of Medicine, Department of Microbiology, Infectiology, and Immunology, Canada
[2] CHUM-Research Center, Montréal, QC, Canada
[3] Caprion, Montréal, QC, Canada
[4] Division of Hematology, McGill University Health Centre, Montréal, QC, Canada
[5] Immunodeficiency Service, Montréal Chest Institute, McGill University Health Centre, Montréal, QC, Canada

▶PP 5.6 Co-expression of multiple inhibitory receptors on CD8+ T cells in viremic and ART-suppressed HIV-1(+) individuals

Authors: B. Macatangay , C. Klamar Blain, F. Hong, J. Bui, A. Cillo and J. Mellors - University of Pittsburgh School of Medicine, Pittsburgh, United States of America

▶PP 5.7 Immune Activation Profile Associated with Comorbidities in Successfully Treated HIV infected Patients

Authors: C. Psomas[1, 2], M. Younas[1], C. Reynes[3], C. Fernandez[2], V. Le Moing[2,4], C. Barbuat[5], N. Nagot[6], P. Portales[7], J.-F. Eliaou[7], J. Reynes[2,4], P. Corbeau[1,8]

[1] Institute of Human Genetics, CNRS UPR 1142, Montpellier, France
[2] Infectious Diseases Department, Montpellier University Hospital, Montpellier, France
[3] Institute of Functional Genomics, UMR 5203, Montpellier University, Montpellier, France
[4] UMI 233, IRD-Montpellier University, Montpellier, France
[5] Infectious Diseases Department, Nîmes University Hospital, Nîmes, France
[6] Department of Medical Informatics, Montpellier University Hospital, Montpellier, France
[7] Immunology Department, Montpellier University Hospital, Montpellier, France
[8] Immunology Department, Nîmes University Hospital, Nîmes, France

SESSION 6: PHARMACOLOGY OF HIV PERSISTENCE

▶PP 6.0 Differential efficacy of antiretroviral drugs in HIV-1 infected human microglia

Authors: E.L. Asahchop[1], G.B. Baker[2], G. Rauw[2] and C. Power[1, 2]

[1] University of Alberta, Edmonton AB Canada - Departments of Medicine (Neurology), Canada
[2] University of Alberta, Edmonton AB Canada – Psychiatry, Canada

▶PP 6.1 Donor-to-Donor Variation in the Host Gene Expression Response to SAHA

Authors: B. Moesker[1], B. Reardon[2], N. Beliakova-Bethell[2], A. Singhania[1], M.S. Breen[1], and C.H. Woelk[1]

[1] Clinical and Experimental Sciences, University of Southampton, Southampton, United Kingdom
[2] Department of Medicine, University of California San Diego, La Jolla, CA, United States of America

SESSION 7: DRUG DISCOVERY

▶PP 7.0 The Utility of the Connectivity Map (CMAP) for HIV Cure Strategies

Authors: Y.P. Gunawardana[1], N. Beliakova-Bethell[2], C. Spina[2], D. Margolis[3], A. Bosque[4], V. Planelles[4], C.H. Woelk[1].

[1] Faculty of Medicine, University of Southampton, Southampton, Hants, United Kingdom
[2] Department of Pathology, University of California San Diego, La Jolla, CA, United States of America
[3] Department of Medicine, University of North Carolina Chapel Hill, Chapel Hill, NC, United States of America
[4] School of Medicine, University of Utah, Salt Lake City, UT, United States of America

▶PP 7.1 In vitro analysis of different PKC agonists, Latency reversal, T-cell activation, cytokine production and isoform selectivity

Authors: R. Barnard, D. Tellers, B. Howell, E. Cook, M. Swanson, S. Vemula, J. Li, S. Carroll, D. Hazuda – Merck, West Point, United States of America

▶PP 7.2 Suppression of the HIV-1 reservoir with a potent Tat inhibitor

Authors: S. Valente[1], C.F. Kessing[1], G. Mousseau[1], S. Mediouni[1], R. Fromentin[2], N. Chomont[2], L. Trautmann[3]

[1] Department of Immunology and Microbial Sciences, The Scripps Research institute, Jupiter, FL, United States of America
[2] Université de Montréal, Centre de Recherche du CHUM, Montréal, QC, Canada
[3] Military HIV Research Program, Silver Springs, MD, United States of America

SESSION 9: NEW THERAPEUTIC APPROACHES 1

▶PP 9.1 Limitations of Employing Antibody Drug Conjugates (ADCs) for Targeting HIV infected Cells as a Strategy for HIV Cure

Authors: J. Strizki[1], D. Graham[1], M. Lu[1], G. Wu[1], M. Breslin[1], N. Davis[2], E. Escandon[2], L. Fayadat-Dilman[2], Y. Zheng[2], R. Barnard[1], R. Garbaccio[1], A. Manibusan[3], S. Bhowmik[3], D. Gately[3], Y. Sun[3], and D. Gorman[2]

[1] Merck Research Labs, West Point, PA, United States of America
[2] Palo Alto, CA, United States of America
[3] Ambrx, San Diego, CA, United States of America

▶PP 9.2 Sequential treatment with 5-aza-2'deoxycitidine and deacetylase inhibitors reactivates HIV

Authors: C. Van Lint[1],S. Bouchat[1], N. Delacourt[1], A. Kula[1], G. Darcis[1,2], F. Corazza[3], J.S. Gatot[1], A. Melard[4], C. Vanhulle[1], B. Van Driessche[1], K. Kabeya[5], M. Pardons[1], V. Avettand-Fenoel[4], N. Clumeck[5], S. De Wit[5], O. Rohr[6,7] and C. Rouzioux[4]

[1] Service of Molecular Virology, Department of Molecular Biology (DBM), Université Libre de Bruxelles (ULB), Gosselies, Belgium
[2] Service des Maladies Infectieuses, Université de Liège, Centre Hospitalier Universitaire (CHU) de Liège, Domaine Universitaire du Sart-Tilman, B35, Liège, Belgium
[3] Laboratory of Immunology, IRISLab, CHU-Brugmann, Université Libre de Bruxelles (ULB), Brussels, Belgium
[4] Service de Virologie, EA7327, Université Paris-Descartes, AP-HP, Hôpital Necker-Enfants-Malades, Paris, France
[5] Service des Maladies Infectieuses, CHU St-Pierre, Université Libre de Bruxelles (ULB), Brussels, Belgium
[6] IUT Louis Pasteur de Schiltigheim, University of Strasbourg, Schiltigheim, France
[7] Institut Universitaire de France (IUF), Paris, France

▶PP 9.3 Computational detection of off-target effects of CRISPR/Cas9-associated gRNAs

Authors: W. Dampier[1,2,3], Ch.H. Chung[1,2], M.R. Nonnemacher[1,2] and B. Wigdahl[1,2]
[1] Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, United States of America
[2] Center for Molecular Virology and Translational Neuroscience, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[3] School of Biomedical Engineering, Science, and Health Systems, Drexel University, Philadelphia, Pennsylvania, United States of America

▶PP 9.4 Strategies to Overcome Active and Latent HIV - Attack is the Best Way for Defense

Author: H. Shadad - Faculty of Medicine, Tanta University, Tanta, Gharbeya, Egypt

▶PP 9.5 Novel CD4-Based Bi-specific Chimeric Antigen Receptors: Toward a Functional Cure of HIV Infection

Authors: S. Bolivar-Wagers, B. Dey, M.H. Ghanem, L. Liu, B. Patel, V. Bundoc, and E.A. Berger - Laboratory of Viral Diseases, NIAID, National Institutes of Health, Bethesda, MD, United States of America

▶PP 9.6 Impairment of the long-term ability of dolutegravir-resistant viruses to integrate

Authors: M.A. Wainberg, N. Osman, H. Thi Pham, B. Spira, T. Mesplede - McGill AIDS Centre, Lady Davis Institute for Medical Research, Jewish General Hospital, Montréal, QC, Canada

SESSION 10: NEW THERAPEUTIC APPROACHES 2

▶PP 10.0 Induction of HIV from latency by a novel molecule

Authors: N.M. Archin[1], D. Boden[2], J. Kirchherr[1], B. Allard[1], K. Sholtis[1], JD. Kuruc[1], G. Kraus[2] and D.M. Margolis[1]

[1] The University of North Carolina, Chapel Hill, NC, United States of America
[2] Janssen Pharmaceuticals, Beerse, Belgium

▶PP 10.1 Predicting determinants of long-term HIV control with gene therapy strategies

Authors: A. L Hill[1], L. Hu[1], L.E. Hogan[2], M.A. Nowak[1] and T.J. Henrich[2]

[1] Program for Evolutionary Dynamics, Harvard University, Cambridge, MA, United States of America
[2] Division of Experimental Medicine, Department of Medicine, University of California, San Francisco, CA, United States of America

▶PP 10.2 Neutraplex Nanoparticles to Target HIV Reservoirs

Authors: C. Lavigne[1], E. Berger[1], S. Stals[1], T. Read[2], M.-A. Langlois[2], D. Gonçalves[3], D. Girard[3] and D. Breznan[4]

[1] Public Health Agency of Canada, National Microbiology Laboratory, Winnipeg, Canada
[2] University of Ottawa, Ottawa, Canada, 3INRS-Institut Armand-Frappier, Laval, Canada
[4] Health Canada, Inhalation Toxicology Laboratory, Ottawa, Canada

▶PP 10.3 Utilizing the binding capacity of CRISPR/Cas9 to target the HIV-1 quasispecies

Authors: M. Nonnemacher[1,2], W. Dampier[1,2,3], M. Desimone[3], V. Pirrone[1,2], K. Kercher[1,2], S. Passic[1,2], J. Williams[1,2] and B. Wigdahl[1,2]

[1] Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, United States of America
[2] Center for Molecular Virology and Translational Neuroscience, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[3] School of Biomedical Engineering and Health Systems, Drexel University, Philadelphia, PA, United States of America

▶PP 10.4 Effects of heme degradation products on reactivation of latent HIV-1

Authors: Z. Melkova[1], P. Shankaran[1], V. Hajkova[1], D. Jilich[2] and Y. Fujikura[1]

[1] Department of Immunology and Microbiology, 1st Medical Faculty of Charles University, Prague, Czech Republic
[2] AIDS Center Bulovka, Prague, Czech Republic

▶PP 10.5 Genetic variation continues to occur in well-controlled HIV-1-infected patients

Authors: W. Dampier[1,2,3], M.R. Nonnemacher[1,2], J. Chang Mell[1,4], J. Earl[1,4], V. Pirrone[1,2], B. Aiamkitsumrit[1,2], W. Zhong1[,2], K. Kercher[1,2], S. Passic[1,2], J.W. Williams[1,2], J.M. Jacobson[1,6] and B. Wigdahl[1,2]

[1] Department of Microbiology and Immunology, Drexel University College of Medicine, Philadelphia, PA, United States of America
[2] Center for Molecular Virology and Translational Neuroscience, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[3] School of Biomedical, Engineering, Science, and Health Systems, Drexel University, Philadelphia, PA, United States of America
[4] Center for Genomic Sciences, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America
[5] Department of Medicine, Division of Infectious Diseases and HIV Medicine, Drexel University College of Medicine, Philadelphia, PA, United States of America
[6] Center for Clinical and Translational Medicine, Institute for Molecular Medicine and Infectious Disease, Drexel University College of Medicine, Philadelphia, PA, United States of America

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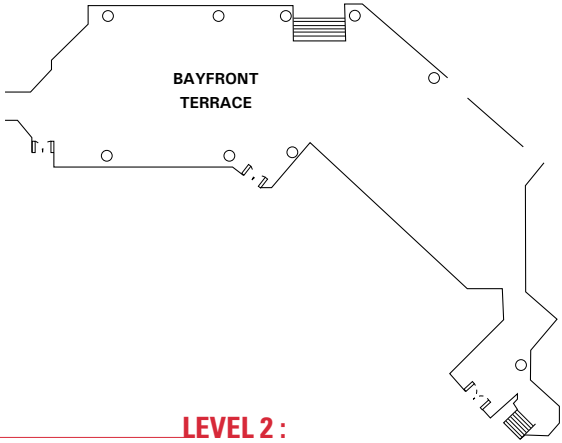
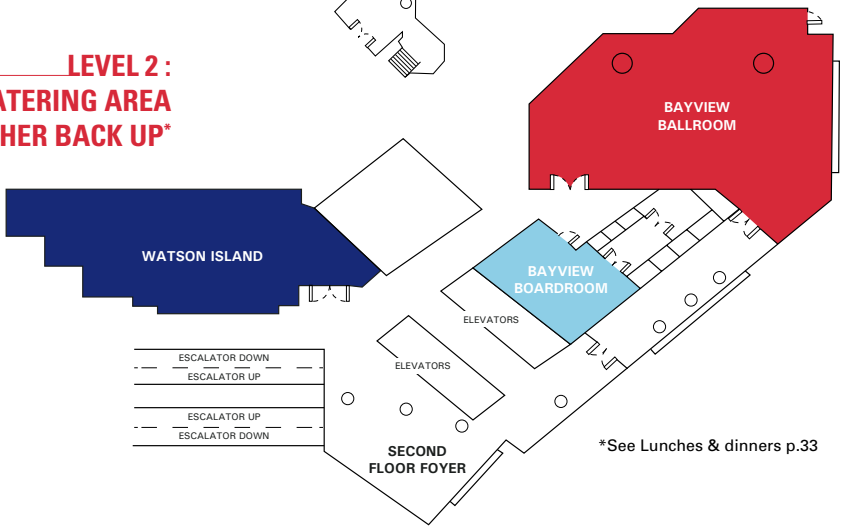
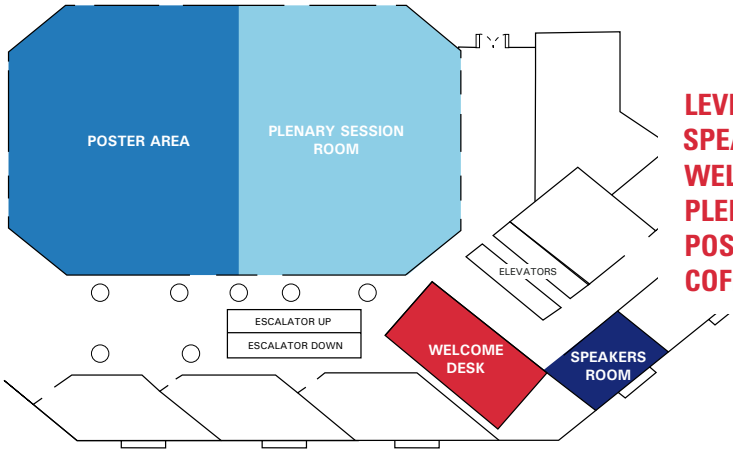


LEVEL 1
CATERING AREA
FINE WEATHER*

LEVEL 2 :
CATERING AREA
WEATHER BACK UP*



*See Lunches & dinners p.33



LEVEL 3 :
SPEAKER PREVIEW ROOM
WELCOME DESK
PLENARY SESSIONS
POSTER AREA
COFFEE BREAK

GENERAL INFORMATION

LOGISTIC ORGANIZATION & REGISTRATION

OVERCOME: 3-5 boulevard Paul-Emile Victor, 92523 Neuilly-sur-Seine Cedex, France
Tel: +33 (0)1 41 92 01 20 - Fax: +33 (0)1 46 41 05 21 - Email: hivpersistence@overcome.fr

CONGRESS VENUE

Marriott Biscayne Bay Hotel
1633 North Bayshore Drive, Miami, FL 33132, Florida, United States of America
Phone: +1 305-374-3900

WORKSHOP OPENING HOURS

Tuesday December 8 : **12.00 - 7.00**
Wednesday December 9 : **7.30 - 7.00**
Thursday December 10 : **7.30 - 7.00**
Friday December 11 : **7.30 - 2.00**

REGISTRATION FEES

- **Certificates of intendance**
  Certificates of attendance will be issued to registrated delegates when they withdraw their badges.
- **Badges**
  The name badge must be worn at all times during the workshop and is non transferable. Access to the conference will not be granted without an official conference name badge.
- **Workshop registration fee: $1500 (Payable in US dollars)**
  Payment of the Workshop registration fee includes the following:
  - Entrance into all scientific sessions, including poster area
  - Single-occupancy accommodation for three (3) nights
  - Official Workshop materials
  - Breakfast, lunch, refreshment breaks and dinner during the days of the conference
- **Accompanying guests, sharing room with delegate: $600**
  Payment of the Accompanying Guest registration fee includes the following:
  - Breakfast, lunch, refreshment breaks and dinner during the days of the conference
- **Workshop administration fee: $300**
  Registration for Community Advisory Board Members of NIH cure projects includes:
  - Entrance into all scientific sessions, including poster area
  - Official Workshop materials
  - Breakfast, lunch, refreshment breaks and dinner during the days of the conference

  For Particular Cases and Postdocs, please contact **hivpersistence@overcome.fr**

LANGUAGE

All sessions will be held in English

JOINT PROVIDER

This activity has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Counting Medical Education through the Joint Providership of the University of Massachusetts Medical School and Overcome. The University of Massachusetts Medical School is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.
The University of Massachusetts Medical School designates this live activity for a maximum of 20.5 AMA PRA Category 1 Credit(s)™. Physicians should claim only credit commensurate with the extent of their participation in the activity.

COFFEE BREAKS

Coffee will be served free of charge in the catering area of the workshop on level 3 to all registrated delegates during the following times:
Tuesday, December 8: **5.30 - 7.30**
Wednesday, December 9: **10.00-10.30** and **3.30-4.00**
Thursday, December 10: **10.00-10.30** and **3.30-4.00**
Friday, December 11: **10.00-10.30**

LUNCHES & DINNERS

Lunches and dinners will be served free of charge in dedicated room on level 2 - in Watson Island room/Bayview Ballroom if the weather is bad or in the Bayfront Terrace if the weather is fine - as follows:

Lunches:
Wednesday, December 9: **12.30-2.00**
Thursday, December 10: **12.30-2.00**

Dinners:
Tuesday, December 8: **7.00-11.30**
Thursday, December 10: **7:00- 11:30**

ABSTRACT BOOK

All accepted abstracts will be published in the abstract book. It will be available on site but only for registered delegates.

POSTER AREA

Poster area is located in level 3, close to the conference room.
Poster authors will be asked to be present next to their poster during the poster viewing session during the following times:
Wednesday, December 9: **5.30-7.00**
Thursday, December 10: **5.30-7.00**

SPEAKERS PREVIEW ROOM

Invited speakers and oral abstract presenters must report to the Speaker Preview room at least 3 hours prior to their presentation to upload and check their presentation. For a morning presentation, please report to the Speaker Preview room the day before until **7.00**.

TRANSPORTATION

The airlines of SkyTeam, Official Alliance Network offer attractive airfares for participants (subject to conditions). To book your electronic ticket, please contact: Overcome Agency at +33 (0)1 40 88 97 97 or visit www.skyteam.com/GlobalMeetings.
Event ID: **3058S**
Validity: from December 3rd 2015 to December 16th, 2015.

MSD'S COMMITMENT TO HIV: 30 YEARS AND COUNTING

Contributing to making a difference in the fight against HIV since 1985[1]

1985

MSD research team initiates study of HIV protease enzyme, building on MSD's previous research on the protease enzyme renin, a part of the cardiovascular system that helps regulate blood pressure[1]

1987

Broad-based HIV clinical research program launches to address treatment and prevtention[1]

1989

Scientists at MSD establish the role of protease in the HIV life cycle and publish the crystal structure[2,3]

1990

Human trials begin for novel NNRTIs[1]

1992

- MSD launches its first protease inhibitor—CRIXIVAN® (indinavir sulfate)[1]
- Results of HAART studies presented at IAS Vancouver[1]
- Era of combination HIV therapy begins[1]

MSD proposes collaboration with other pharmaceutical companies on AIDS drug development. The collaboration eventually becomes the Inter-Company Collaboration for AIDS Drug Development[1]

1996

- NNRTI discovered in Merck Research Labs becomes one of the first NNRTIs in the market[1]
- Enhancing Care Initiative launches with a 5-year grant from MSD to improve the care of people living with HIV/AIDS in resource-limited settings[1]

1997

MSD begins work with Romania to increase access to treatment and care for thousands of children and adults living with HIV or AIDS. The work helps establish a national AIDS database and the creation of a network of AIDS treatment centers[1]

1998

AIDS = acquired immune deficiency syndrome; ARV = antiretroviral; HIV = human immunodeficiency virus; IAS = International AIDS Society; NNRTI = nonnucleoside reverse transcriptase inhibitor.

Before prescribing ISENTRESS, please read the Prescribing Information available at this exhibit.

References: 1. Merck Archival Services. Accessed 05/15/2015. **2.** Navia NA, Fitzgerald PMD, McKeever BM, et al. Three-dimensional structure of aspartyl protease from human immunodeficiency virus HIV-1. *Nature.* 1989;337(6208):615–620. **3.** HIV research. Merck Responsibility Web site. http://www.merckresponsibility.com/access-to-health/infectious-diseases/hiv-aids/hiv-research/. Updated 12 August 2014. Accessed 13 August 2015. **4.** FDA expands use of HIV drug Isentress to children and adolescents [press release]. US Food and Drug Administration Web site. http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm284473.htm. Published 21 December 2011. Updated 2 June 2014. Accessed 13 August 2015. **5.** Lennox JL, Landovitz RJ, Ribaudo HJ, et al; for the ACTG A5257 Team. Efficacy and tolerability of 3 nonnucleoside reverse transcriptase inhibitor–sparing antiretroviral regimens for treatment-naïve volunteers infected with HIV-1: a randomized, controlled equivalence trial. *Ann Intern Med.* 2014;161(7):461–471. **6.** Merck's investigational HIV therapy, doravirine (MK-1439), demonstrates antiviral activity in phase 2B study of treatment-naïve adults [press release]. Merck Newsroom Home Web site. http://www.mercknewsroom.com/news-release/research-and-development-news/mercks-investigational-hiv-therapy-doravirine-mk-1439-dem. Published 5 March 2014. Accessed 13 August 2015. **7.** First patient enrolled in new phase 3 trial program investigating a once-daily dosing regimen of ISENTRESS® (raltegravir)

2000

MSD announces partnership with Bill and Melinda Gates Foundation and Republic of Botswana to form the African Comprehensive HIV/AIDS Partnerships (ACHAP)[1]

2007

ISENTRESS™ (raltegravir) is approved—the first medicine to target the integrase enzyme needed for HIV replication[1]

2008

ACHAP enters Phase II, focusing on prevention programs, including safe male circumcision and targeted HIV prevention for girls[1]

ISENTRESS wins US Prix Galien Award for Best Pharmaceutical Agent[1]

2010

2011

MSD launches HIV Care Collaborative for underserved populations in the United States. The initiative supports health departments in Atlanta, Houston, and Philadelphia to connect people living with HIV to care[1]

ISENTRESS license extends to children aged ≥2 years[4]

2012

2014

- Head-to-head data from a large clinical trial demonstrating the efficacy and tolerability of ISENTRESS is published[5]
- MSD initiates Phase III trials of a novel NNRTI[6]
- Phase III trials begin on an investigational, novel reformulated integrase inhibitor[7]

2015 + beyond

- Medicines Patent Pool signs licensing agreement with MSD for pediatric formulations of raltegravir[8]
- MSD is committed to continued research and development focusing on novel ARV therapies and collaborative efforts towards prevention and eradication of HIV[9,10]

[press release]. Merck Newsroom Home Web site. http://www.mercknewsroom.com/news-release/research-and-development-news/first-patient-enrolled-new-phase-3-trial-program-investig. Published 5 June 2014. Accessed 13 August 2015. **8.** The Medicines Patent Pool signs licensing agreement with MSD for paediatric formulations of raltegravir [press release]. Medicines Patent Pool Web site. http://www.medicinespatentpool.org/the-medicines-patent-pool-signs-licensing-agreement-with-msd-for-paediatric-formulations-of-raltegravir/. Published 24 February 2015. Accessed 13 August 2015. **9.** Merck signs two deals for novel HIV drug candidates and initiates phase II clinical trial of MK-1439 for HIV [press release]. Merck Web site. http://www.merck.com/licensing/our-partnership/Merck-chimerix-partnership.html. Published 24 July 2012. Accessed 13 August 2015. **10.** Merck to participate in new research efforts to eradicate HIV [press release]. Merck Web site. http://www.merck.com/licensing/our-partnership/Eradication-partnership.html. Published 11 July 2011. Accessed 13 August 2015.

MSD

PERSISTENCE.

IT'S WHY WE'RE [STILL] HERE.

ADVANCING AIDS RESEARCH FOR 30 YEARS

COMMITTED TO A CURE

For information contact
grants@amfar.org

amfAR
MAKING AIDS HISTORY