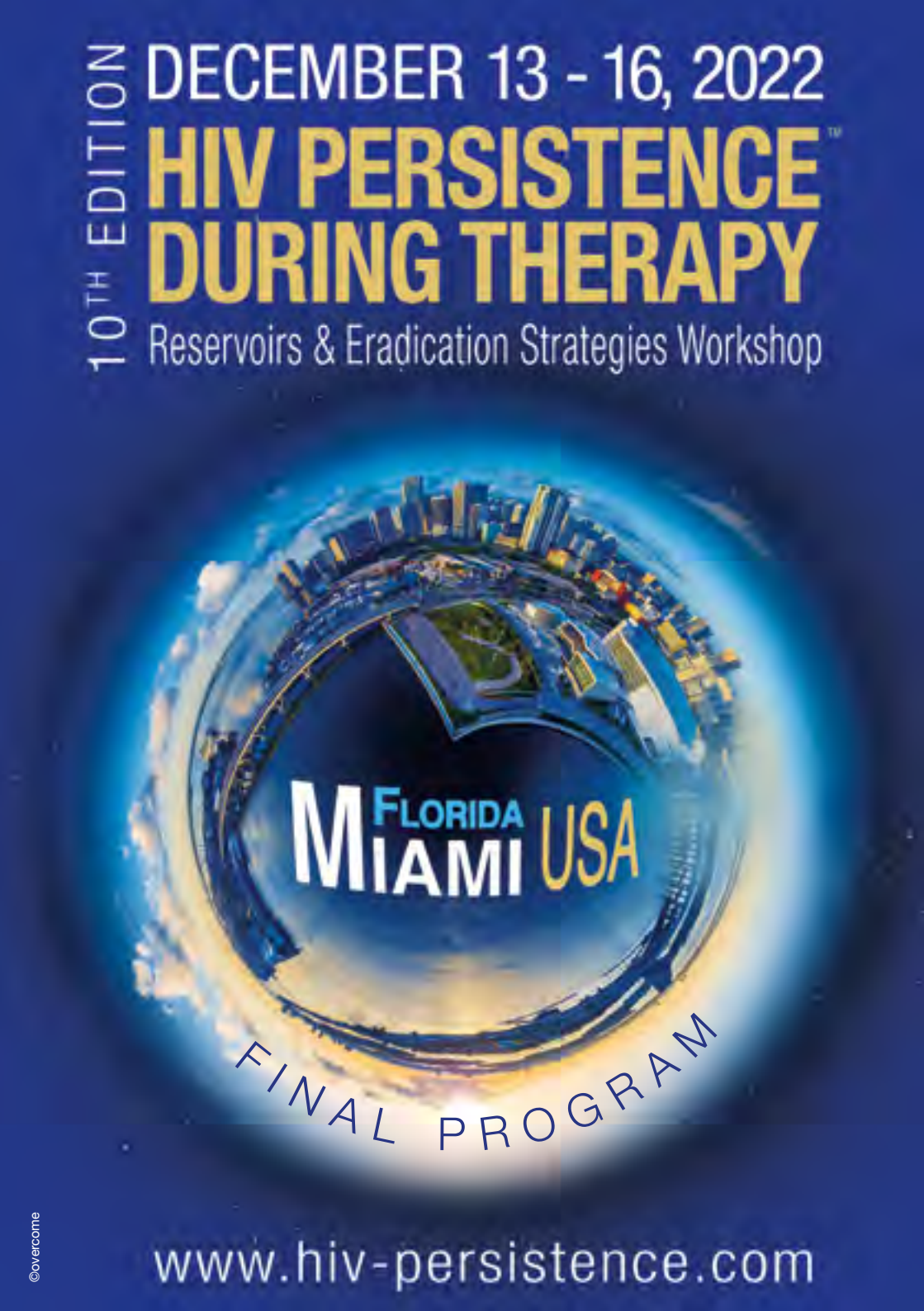
10TH EDITION

DECEMBER 13 - 16, 2022

HIV PERSISTENCE™ DURING THERAPY

Reservoirs & Eradication Strategies Workshop



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SAVE THE DATES!

The National Institute of Allergy and Infectious Diseases (NIAID) will host the sixth biennial *Strategies for an HIV Cure* meeting at the NIH main campus in Bethesda, MD on October 12-13, 2023. The meeting will serve as the joint meeting of the Martin Delaney Collaboratories for HIV Cure Research for 2023. The goal is to facilitate communication and collaboration among the ten NIH-funded Martin Delaney Collaboratories, the broader HIV cure research community, and community stakeholders. The meeting is open to the public, registration is free, and poster abstracts are encouraged.

We look forward to seeing you next year in Maryland!

Diane Lawrence
Leia Novak
Uday Shankar
Brigitte Sanders
Betty Poon
Tania Lombo
Eric Refsland
Gerard Lacourciere
Yan Zhou
Patrick Jean-Philippe
Sandra Bridges Gurgo
Karl Salzwedel

NIH National Institute of Allergy and Infectious Diseases

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Reservoirs & Eradication Strategies Workshop

SUMMARY

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Chairman

Alain LAFEUILLADE, La Valette-du-Var - FRA

Steering Committee

David MARGOLIS, Chapel Hill - USA
Karl SALZWEDEL, Bethesda - USA
Mario STEVENSON, Miami - USA

Scientific Committee

Nancy ARCHIN, Chapel Hill - USA
Véronique AVETTAND FENOEL, Paris - FRA
Katie BAR, Philadelphia - USA
Paula CANNON, Los Angeles - USA
Marina CASKEY, New York - USA
Ann CHAHROUDI, Yerkes - USA
Nicolas CHOMONT, Montréal - CAN
Janice CLEMENTS, Baltimore - USA
Michael FARZAN, San Diego - USA
Robert GALLO, Baltimore - USA
J. Victor GARCIA-MARTINEZ, Chapel Hill - USA
Romas GELEZIUNAS, California - USA
Ya Chi HO, New Haven - USA
Rowena JOHNSTON, New York - USA
Brad JONES, New York - USA
Jonathan KARN, Cleveland - USA
Mary KEARNEY, Frederick - USA
Guenter KRAUS, Beerse - BEL
Sharon LEWIN, Melbourne - AUS
Michel LICHTERFELD, Boston - USA
Javier MARTINEZ-PICADO, Barcelona - SPA
Thumbi NDUNG'U, Durban - ZAF
Michel NUSSENZWEIG, Rockefeller - USA
Afam OKOYE, Beaverton - USA
Sarah PALMER, Sydney - USA
Livia PEDROZA, Paris - FRA
Deborah PERSAUD, Jupiter - USA
Vicente PLANELLES, Salt Lake City - USA
Maria SALGADO, Barcelona - SPA
Susana VALENTE, Jupiter - USA
Jan VAN LUZEN, London - UK
Sarah Gianella WEIBEL, San Diego - USA

WELCOME ADDRESS

Dear friends, dear colleagues,

We are delighted to announce that the 10th International Workshop on HIV Persistence during Therapy, is scheduled to be live on December 13-16, 2022, at the Marriott Biscayne Bay Hotel in Miami.

Since the first edition of this workshop in 2003 in St Maarten, the issues of HIV Persistence and reservoirs have become increasingly relevant, not only for the biologist but also for the clinician facing the problem of long-term control of this persistent retroviral infection.

Several meetings have now included reviews on these topics in their program, but this biennial workshop is unanimously recognized as THE reference workshop on HIV reservoirs and eradication strategies.

To this end, the program format will continue to follow the past successes and include presentation of new, unpublished data and a panel of experts to sum up the current data in the field. Priority will be given to the quality of scientific research and new data. We encourage highly animated scientific exchanges, in a relaxed and friendly environment. To achieve these goals, the number of participants is still voluntarily limited and participants must have submitted abstracts for selection as either an oral or poster presentation. As in previous years, selection will be extremely rigorous and conducted by the Scientific Committee.

We also would like to continue improving the participation of young investigators, in particular through abstract submission, but also through grants. These scholarships have been made possible by both the National Institutes of Health, partnerships and the Steering Committee involvement. We are all very grateful for this development that we hope will bring new energy, thinking and ideas to the field.

We are very happy to meet up with you again in Miami this December, wishing you all an enjoyable and fruitful workshop!

The Steering Committee
Alain Lafeuillade
David Margolis
Karl Salzwedel
Mario Stevenson

AGENDA

Time	TUESDAY DECEMBER 13	WEDNESDAY, DECEMBER 14	THURSDAY, DECEMBER 15	FRIDAY, DECEMBER 16
8:00 10:00 AM		SESSION 1: Basis Science of HIV Persistence	SESSION 4: Immunology of HIV Persistence	SESSION 7: Human Studies
10:00 10:30 AM	Bill & Melinda Gates Foundation Curated session	Coffee Break	Coffee Break	Coffee Break
10:30 AM 12:00 PM		SESSION 2: In Vitro and Animal Model Studies of HIV Persistence	SESSION 5: Drug Discovery Development & Pharmacology	SESSION 8: Antibody & Immune based therapies
12:00 12:30 PM	Lunch on your own	Lunch	Lunch	Closing ceremony
1:30 2:00 PM	NIH Martin Delaney Collaboratories symposium			
2:00 3:10 PM		SESSION 3: Virology of HIV Persistence	SESSION 6: Cell & Gene Therapies	
3:10 3:40 PM	Coffee Break			
4:00 5:00 PM	NIH Martin Delaney Collaboratories symposium (continued)	Young investigators session	Young investigators session	
4:55 5:15 PM	Discussion Break	Posters session	Posters session	
5:15 6:30 PM	NIH Martin Delaney Collaboratories symposium			
6:30 7:00 PM	Opening Lecture "Tribute to Timothy Ray Brown"			
7:30 PM	Welcome dinner	Evening dinner on your own	Evening dinner on your own	

TUESDAY, DECEMBER 13, 2022

10.00 12.00 **BILL & MELINDA GATES CURATED SESSION**

Welcome & Introduction to the HIV Reservoirs Consortium
Heather Ann Brauer, Bill & Melinda Gates Foundation

High-Dimensional Spatial Characterization of Viral Reservoirs in Tissues
Jake Estes, Oregon Health & Science University

Spatial Resolution of Virologic and Immunologic Characteristics of HIV Reservoirs in Human Lymph Node Tissues Following Early Art Initiation
Zaza Ndhlovu, Africa Health Research Institute

Analytical Treatment Interruption to Identify Host Biomarkers Predictive of Viral Rebound
Lillian Cohn, Fred Hutchinson Cancer Center

Current Broadly Neutralizing Antibody Clinical Trials
The Rio Trial: Design, Implementation and Post Treatment Viral Control
Christian Gaebler, Rockefeller University
Sarah Fidler, Imperial College London

Closing Remarks
Heather Ann Brauer, Bill & Melinda Gates Foundation

12:00 - 1:30 PM - LUNCH ON YOUR OWN

01.30 06.30 **NIH MARTIN DELANEY COLLABORATORIES FOR HIV CURE RESEARCH* SATELLITE SYMPOSIUM**

Introduction to symposium format
Karl Salzwedel, National Institute of Allergy and Infectious Diseases, Bethesda, (USA)

01.35 01.55 **Beat-HIV**
Moderator: Luis Montaner, Wistar Institute

RF1: BEAT2 primary trial outcomes: PEG-IFN-A2B + 3BNC117 & 10-1074 in chronic HIV infection
Luis Montaner, Wistar Institute

RF2: High-efficiency ablation of CCR5 in hematopoietic stem cells generates HIV-refractory immune systems
Daniel Claiborne, Wistar Institute

RF3: Targeted LNP-mRNA therapeutics for HIV cure
Hamideh Parhiz, University of Pennsylvania

Tissues: A NHP model of CNS persistence
Katharine Bar, University of Pennsylvania

02.00
02.20

REACH

Moderator: Brad Jones, Weill Cornell Medicine

RF1: Interpreting on-ART proviral diversity in context of HIV's within-host evolutionary history enriches our understanding of reservoir dynamics
Zabrina Brumme, Simon Fraser University

RF2: Updates on bNAb Cure Studies and Implications for Future Studies
Marina Caskey, The Rockefeller University

RF3: Resistance to Cytotoxicity in HIV-infected CD4 Cells
Brad Jones, Weill Cornell Medicine

Tissues: A story of survival: characterizing HIV-infected macrophages that resist NK cell-mediated killing
Kiera Clayton, University of Massachusetts Medical School

02.25
02.45

CARE

Moderator: David Margolis, University of North Carolina Chapel Hill

RF1: New approaches to HIV Latency Biology and Therapeutics
Anne-Marie Turner, University of North Carolina at Chapel Hill

RF2: HLA-E-mediated targeting for control of viral rebound
David Margolis, University of North Carolina Chapel Hill

RF3: Microglia: potential barrier to SIV eradication
Yuyang Tang, University of North Carolina at Chapel Hill

Tissues: Persistent HIV infection in the CNS
Guochun Jiang, University of North Carolina at Chapel Hill

02.50
03.10

Erase-HIV

Moderator: Mirko Paiardini, Emory University

RF1: CD8+ T cells promote HIV latency in CD4+ T cells through the downmodulation of NF-KB
Simona Mutascio, Emory University

RF2: Reprograming CD8+ T cells to enhance their anti-HIV potential
Asier Saez-Cirion, Institut Pasteur

RF3: Dynamics and antiviral role of TOX+ TCF1+ CD39+ CD8 T cells in lymphoid tissue of SIV-infected rhesus macaques
Mirko Paiardini, Emory University

Tissues: Macrophages are the primary source of virus in semen in SIV-infected rhesus macaques
Claire Deleage, Leidos/National Cancer Institute

☕ 03:10 – 03:40 PM - COFFEE BREAK

03.40
04.00

I4C

Moderator: Dan Barouch, Beth Israel Deaconess Medical Center, Harvard Medical School

RF1: HLA association with HIV disease outcomes implicates novel effect of NK cells
Rasmi Thomas, US Military HIV Research Program

RF2: Progress in Engineering B-cells to Produce bNAbs
John Mellors, University of Pittsburgh

RF3: Therapeutic efficacy of combined active and passive immunization in ART-suppressed, SHIV-infected rhesus macaques
Victoria Walker-Sperling, Beth Israel Deaconess Medical Center, Harvard Medical School

Tissues: CNS Investigations in I4C
Sandhya Vasan, US Military HIV Research Program

04.05
04.25

CRISPR for Cure

Moderator: Tricia H. Burdo, Temple University

RF1: Dynamics of NK Cell Responses to HIV-1 Infection in humanized mice
Liang Shan, Washington University School of Medicine in St. Louis

RF2: Use of barcoded SIV and full-length sequencing for detecting viral reservoirs after CRISPR
Tricia H. Burdo, Temple University

RF3: Developing library of safe and universal multiplex gRNAs for efficient editing of HIV & SIV pro viral DNA by CRISPR
Kamel Khalili, Temple University

Tissues: HIV persistence and latency in microglia: Single-cell transcriptome analysis of three humanized mice models of HAND shows viral responses to inflammatory signaling
Konstantin S. Leskov, Case Western Reserve University

04.30
04.55

PAVE

Moderator: Deborah Persaud, Johns Hopkins University

RF1: Reservoir cell profiling in young adults with perinatal HIV-1 infection
Mathias Lichterfeld, Brigham and Women's Hospital

RF2: AAV vector delivery of bNAbs
Mauricio Martins, University of Florida Scripps Biomedical Research

RF3: Surge and purge
Ann Chahroudi, Emory University

RF4: HIV persistence Assays for Pediatric Cure Trials
Deborah Persaud, Johns Hopkins University

Tissues: Macrophage-Tropic Variants Contribute to HIV-1 Persistence and Rebound Viremia off ART
Katherine Luzuriaga, University of Massachusetts Chan Medical School

04:55 - 05:15 PM - DISCUSSION BREAK (coffee available)

05.15
05.35

HOPE

Moderator: Melanie Ott, Gladstone Institute of Virology and Immunology

RF1: A new supercomplex transcriptionally silencing HIV-1
Zichong Li, Gladstone Institute of Virology and Immunology

RF2: Targeting HIV-1 Tat via protein degradation
Susana Valente, University of Florida

RF3: Targeted genome engineering of human T cells in vivo for HIV cure
Priti Kumar, Yale University

Tissues: Spironolactone represses HIV-1 driven transcription in human microglia and T cell models of latency and alters DNA methylation of metabolic genes
Alina Pang, Weill Cornell Medical College

05.40
06.00

DARE

Moderator: Sharon Lewin, University of Melbourne

RF1: Impact of therapeutic vaccination on measures of HIV persistence
Kara Chew, University of California, Los Angeles

RF2: Targeting post-ART viral rebound with SIV neutralizing antibodies
Afam Okoye, Vaccine and Gene Therapy Institute, Oregon Health & Sciences Institute

RF3: Romidepsin synergistically reduces the levels of HIV DNA when combined with pro-apoptotic drugs
Youry Kim, University of Melbourne

Tissues: Chronic immune activation and gut barrier dysfunction is associated with neuroinflammation in ART-suppressed SIV+ rhesus macaques
Jake Estes, Vaccine and Gene Therapy Institute, Oregon Health & Sciences University

06.05
06.25

RID-HIV

Moderator: Sumit Chanda, Scripps Research

RF1: Microbiome/metabolome associated mechanisms modulate Immune dysfunction and HIV Persistence
Ashish Sharma, Emory University

RF2: Immuno-virological determinants of extremely low viral reservoirs in PWH on cART
Maria Salgado, IrsiCaixa Institute

RF3: Killing reactivated cells by recruitment of NK cells
Sumit Chanda, Scripps Research

Tissues: Lessons learned from HIV-1 STAR to be implemented in RID HIV
Laurens Lambrechts, Ghent University

06.25 06.30

Closing remarks
Karl Salzwedel, National Institute of Allergy and Infectious Diseases, Division of AIDS, Bethesda, (USA)

06.30 07.00

WELCOMING MESSAGE AND OPENING LECTURE

Welcoming Message
David Margolis, University of North Carolina, Chapel Hill, (USA)
Karl Salzwedel, National Institute of Allergy and Infectious Diseases, Division of AIDS, Bethesda, (USA)
Mario Stevenson, University of Miami Leonard School of Medicine, Miami, (USA)

Opening Lecture "Tribute to Timothy Ray Brown"
Lessons learned from allogeneic stem cell transplantation in HIV + Patients
Lecturer: Gero Hütter, Cellex, Dresden, (DE)

07:30 PM - **WELCOME DINNER AT BRIZA ON THE BAY**

* The Martin Delaney Collaboratories for HIV Cure Research is the flagship NIH program on HIV cure research. The purpose is to foster dynamic, multidisciplinary collaborations between basic, applied, and clinical researchers studying HIV persistence and developing potential curative strategies. This is accomplished by establishing partnerships across academia, industry, government, and community, with a goal of leveraging common resources to accelerate the pace of HIV cure research and engage the next generation of HIV cure researchers.

The program was launched in July 2011 and has since been expanded to a total of ten Collaboratories, with one of them (PAVE) focused specifically on HIV cure research in infants and children. The combined program is co-funded by seven NIH Institutes (NIAID, NICHD, NIDA, NIMH, NHLBI, NIDDK, and NINDS) and supports a network of approximately 300 Collaboratory members.

WEDNESAY, DECEMBER 14, 2022

08.00 10.00

SESSION 1: BASIC SCIENCE OF HIV PERSISTENCE

Chairs: Maria Salgado, IrsiCaixa Institute for AIDS Research, Badalona, (SPA) and Nancie Archin, Division of Infectious Diseases, School of Medicine, University of North Carolina, Chapel Hill, (USA)

▶ OP 1.1: Sequencing HIV: Significance and Impact

Lecturer: S. Palmer, Centre for Virus Research, The Westmead Institute for Medical Research, The University of Sydney, Westmead, NSW, Australia, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia

▶ OP 1.2: HIV Silencing and Cell Survival Signatures of HIV-Infected CD4 T Cell Transcriptomes under Antiretroviral Therapy (ART)

I. C. Clark[1,2,3], P. Mudvari[4], S. Thaploo[2], S. Smith[4], M. Abu- Laban[4], S. G. Deeks[5], F.J. Quintana[2,6], D. C. Douek[7], A. R. Abate[1], E. A. Boritz[4]

[1]Department of Bioengineering and Therapeutic Sciences, School of Pharmacy, University of California San Francisco, San Francisco, CA, (USA), [2] Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, (USA), [3] Department of Bioengineering, California Institute for Quantitative Biosciences, QB3, University of California Berkeley, Berkeley, CA, (USA), [4] Virus Persistence and Dynamics Section, Vaccine Research Center, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, (USA),

[5] Department of Medicine, University of California San Francisco, San Francisco, CA, (USA), [6] Broad Institute of MIT and Harvard, Cambridge, MA, (USA), 7Human Immunology Section, Vaccine Research Center, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, (USA)

▶ OP 1.3: The fraction of cells with unspliced HIV RNA is not associated with plasma viremia

A. Capoferri[1], A. Wiegand[1], F. Hong[2], W. Shao[3], M. Sobolewski[2], M. Kearney[1], R. Hoh[4], S. Deeks[4], J. M. Coffin[5], J. W. Mellors[2]

[1]HIV Dynamics and Replication Program, National Cancer Institute, Frederick, (USA), [2] Division of Infectious Diseases, University of Pittsburgh, Pittsburgh, (USA), [3] Leidos Biomedical Research, Inc, Frederick National Laboratory For Cancer Research, Frederick, (USA), [4] University of California San Francisco, San Francisco, (USA), [5] Department of Molecular Biology and Microbiology, Tufts University, Boston, (USA)

▶ OP 1.4: Definitive evidence of a persistent HIV reservoir in human brain myeloid cells despite ART

Y. Tang[1,2], G. Jiang[2], M. Porrachia[4], C. Ignacio[4], L. M. Wong[1], D. Zhong[1], J. Du[1], B. Cotsakis[1], S. Maske[1], E. de la Parra Polina[1], T. L. Simermeyer[1], D. Li [1], B. Woodworth[4], J. Kirchherr[1], B. Allard[1], M. Clohosey[1], G. D. Whitehill, J. J. Eron [2], N. M. Archin[1,2], S. B. Joseph[1,3], K. Bar[4], A. Chaillon[5], S. Gianella[5], D. M. Margolis[1,2,3], G. Jiang[1,2,6]

[1] HIV Cure Center, University of North Carolina at Chapel Hill, Chapel Hill, (USA), [2] Division of Infectious Diseases, Department of Medicine, University of North Carolina At Chapel Hill, (USA), [3] Department of Microbiology and Immunology, UNC School of Medicine, Chapel Hill, North Carolina, (USA), [4] Department of Medicine, University of Pennsylvania, Philadelphia, (USA), [5] Department of Medicine, University of California at San Diego, La Jolla, (USA), [6] Department of Biochemistry and Biophysics, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, (USA)

▶ OP 1.5: P400/Tip60 chromatin remodeling complex in HIV transcription and latency establishment

L. Mori[1,2], C. Li[1], T. Venables[1], R. Bronson[1], M. E. Pipkin[1,2], S. T. Valente[1,2]

[1]The Skaggs Graduate School of Chemical And Biological Sciences, The Scripps Biomedical Research Institute, Department of Immunology and Microbiology, Jupiter, (USA), [2]The Skaggs Graduate School of Chemical and Biological Sciences, The Scripps Research Institute, Jupiter, (USA)

▶ **OP 1.6: Role of UHRF1 in HIV-1 transcriptional repression through epigenetic and non-epigenetic mechanisms**

A. Aït-Ammar[1,#], M. Bendoumou[1,#], M. Santangelo[1], L. Nestola[1], C. Van Lint[1]
[1] Service of Molecular Virology, University of Brussels (ULB), Brussels, Belgium, [#] These authors contributed equally to this work

▶ **OP 1.7: Potent latency reversal enables in-depth transcriptomic analysis of the translation-competent HIV-1 reservoir**

M. Pardons[1], B. Cole[1], L. Lambrechts[1], S. Rutsaert[1], Y. Noppe[1], J. Vega[2], E. Nijs[3], E. Van Gulck[3], D. Boden[4], L. Vandekerckhove[1]
[1] Hiv Cure Research Center, Department of Internal Medicine And Pediatrics, Ghent University, Ghent, Belgium, [2] Arcturus Therapeutics, Science Center Drive - San Diego, (USA), [3] Janssen Infectious Diseases And Diagnostics, Johnson And Johnson, Beerse, Belgium, [4] Janssen Biopharma, Johnson And Johnson, South San Francisco, (USA)

10:00 – 10:30 AM - COFFEE BREAK

10.30
12.30

SESSION 2: IN VITRO AND ANIMAL MODEL STUDIES OF HIV PERSISTENCE

Chairs: Ann Chahroudi, Associate Professor of Pediatrics, Division of Pediatric Infectious Diseases, Emory University School of Medicine, Atlanta, (USA), and Afam Okoye, Associate Professor, Oregon Health & Science University, Beaverton, Oregon, (USA)

▶ **OP 2.1: CCR5 in HIV Prevention and Cure**

Lecturer: Jonah B. Sacha, Vaccine & Gene Therapy Institute and Oregon National Primate Research Center, Oregon Health & Science University, Portland, (USA)

▶ **OP 2.2: Characterization of the SIV tissue reservoir transcriptional environment at the single focus level during ART and post ATI**

M. Arif[1], S. Samer[1], C.T. Thuruthiyil[1], M.D. Mcraven[1], F. Villinger [2], E. Martinelli[1], R. Lorenzo-Redondo[1], T. Hope[1]
[1]Northwestern University, Chicago, (USA), [2] University of Louisiana At Lafayette, New Iberia, (USA)

▶ **OP 2.3: The EZH2 inhibitor Tazemetostat increases MHC I antigen presentation in vitro and in vivo, enhancing antiviral activities of HIV-specific CTLs**

A. Gramatica[1], A. Danesh[1], I. Miller[1], J. Weiler[1], F. Khan[1], D. Copertino[1], U. Chukwukere[1], L. Leyre[1,2], B. Jones[1,2]
[1] Division of Infectious Diseases, Department of Medicine, Weill Cornell Medicine, New York, (USA), [2] Immunology and Microbial Pathogenesis Program, Weill Cornell Graduate School of Medical Sciences, New York, (USA)

▶ **OP 2.4: No Evidence of Ongoing Viral Replication in SIV-Infected Macaques on Combination Antiretroviral Therapy Initiated in the Chronic Phase of Infection Despite Elevated Residual Plasma Viral Loads**

G. Q. Del Prete[1], M. Nag[1], T. Immonen[1], C. Fennessey[1], W. Bosch[1], A. Conchas[1], A. E Swanstrom[1], J. Lifson[1], B. F. Keele[1], A. Macairan[1], K. Oswald[1], R. Fast[1], R. Shoemaker[1], L. Silipino[1], M. Hull[1], D. Donohue[2], T. Malys[2], G. Muthua[1], M. Breed[3], J. Kramer[3]
[1] AIDS and Cancer Virus Program, Frederick National Laboratory For Cancer Research, Frederick, (USA) [2] DMS Applied Information & Management Sciences, [3] Laboratory Animal Sciences Program, Frederick National Laboratory for Cancer Research, Frederick, Maryland, (USA)

▶ OP 2.5: Targeting the SIV reservoir with Alemtuzumab

B. Varco-Merth[1,2], M. Chaunzwa[1,2], D. Duell[1,2], A. Marenco[1,2], S. Docken[3], J. Smedley[1,2], M. K. Axthelm[1,2], S. G. Hansen[1,2], M. P. Davenport[3], J. D. Estes[1,2], B. Keele[4], J. D. Lifson[4], S. R. Lewin[5], A. A. Okoye[1,2] , L. J. Picker[1,2]
[1] Vaccine and Gene Therapy Institute, Oregon Health & Science University, Beaverton, Oregon, (USA), [2] Oregon National Primate Research Center, Oregon Health & Science University, Beaverton, Oregon, (USA), [3] Kirby Institute for Infection and Immunity, University of New South Wales, Sydney, New South Wales, Australia, [4] AIDS and Cancer Virus Program, Leidos Biomedical Research, Inc., Frederick National Laboratory, Frederick, MD, Untied States, [5] The Peter Doherty Institute for Infection and Immunity, The University of Melbourne and Royal Melbourne Hospital, Victoria, Australia

▶ OP 2.6: Constitutive NKG2A levels and timing of antiretroviral therapy initiation impact the potential role of NK cells after treatment interruption -the pVISCONTI study

A. Chapel[1], C. Passaes[1], D. Desjardins[2], V. Monceaux[1], A. Melard[3], N. Dereuddre-Bosquet[2], V. Avettand-Fenoel[3], M. Müller-Trutwin[1], R. Le Grand[2], A. Saez-Cirion[1], N. Dimant[2], F. Perdomo-Celis[1], A. David[1], C. Rouzioux[4]
[1] Institut Pasteur, HIV, Inflammation And Persistence Unit, Université Paris Cité, Paris, (FRA), [2] UMR1184, Immunology of Viral, Auto-Immune, Hematological And Bacterial Diseases (IMVA-HB), IDMIT Department, IBFJ, CEA, Université Paris-Saclay, Inserm, Fontenay-Aux-Roses, le Kremlin-Bicêtre, (FRA), [3] Université Paris Cité, INSERM U1016, CNRS UMR 8104, APHP Hôpital Cochin, Paris, (FRA), [4] Université de Paris / CNRS 8104, APHP Hôpital Necker - Enfants Malades, Paris, (FRA)

▶ OP 2.7: The latency reversing agent HODHBt synergizes with IL-15 to enhance cytotoxic function of HIV-specific CD8+ T-cells

D. Copertino[1], C. Stover[2], A. Ward[1], N. Howard[2], C. Levinger[2], A. Pang[1], M. Corley[1], J. Weiler[1], A. Bosque[2,#], R.B. Jones[1,#], P. Zumbo[3], D. Betel[3,6,7], R. T. Gandhi[8], D. K. McMahon[9], R. J. Bosch[10], B. J. Macatangay[9], J. C. Cyktor[9], J. J. Eron[10], J. W. Mellors[9], R. Brad Jones for the ACTG A5321 Team.
[1] Weill Cornell Medicine, Department of Infectious Diseases Division of Medicine, New York, (USA), [2] George Washington University, Department of Microbiology, Immunology And Tropical Medicine, Washington, (USA), [3] Weill Cornell Medicine, Department of Physiology and Biophysics, [4] Catenion GmbH, Berlin, (DE), [5]Weill Cornell Medicine, Institute for Computational Biomedicine, New York, (USA), [6] Weill Cornell Medicine, Hematology and Medical Oncology, New York, (USA), [7] Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA, (USA), [8] Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA, (USA), [9] Center for Biostatistics in AIDS Research, Harvard T.H. Chan School of Public Health, Boston, MA, (USA), [10] Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, (USA)
[#] *These Authors contributed equally*

12:30 – 02:00 PM - LUNCH

02.00
04.00

SESSION 3: VIROLOGY OF HIV PERSISTENCE

Chairs: Ya Chi Ho, Assistant Professor of Microbial Pathogenesis and Medicine; Investigator, HIV Reservoirs and Viral Eradication Transformative Science Group (Cure TSG) New Haven, CT, (USA)
Mary Kearney, HIV Dynamics and Replication Program, Host-Virus Interaction Branch, National Cancer Institute, National Institutes of Health, Frederick, MD, (USA)

▶ OP 3.1: HIV Persistence in women, an update

Lecturer: Nancie Archin, Division of Infectious Diseases, School of Medicine, University of North Carolina at Chapel Hill, (USA)

▶ OP 3.2: Clonally expanded HIV-1 proviruses with 5'- Leader defects can give rise to non-suppressible residual viremia and complicate ART management

F. Wu[1], S. Yasin[2], M. Summers[2], R. Siliciano[1], F. Simonetti[1]
[1] Johns Hopkins University, School of Medicine, Division of Infectious Diseases, Baltimore, (USA), [2] University of Maryland Baltimore County, Department of Chemistry and Biochemistry, Baltimore, (USA)

▶ OP 3.3: Inducible replication-competent HIV proviruses persist in memory CD4+ T cells expressing high levels of the integrin VLA-4 (α4β1)

C. Dufour[1], R. Fromentin[1], C. Richard[1], A. Ackaoui[1], M. Pardons[1], M. Massanella[1], B. Murrell[2], J.P. Routy[3], B. Routy[1], N. Chomont[4]

[1] Centre de Recherche du CHUM And Department of Microbiology, infectiology and immunology, Université de Montréal, Montréal, (CAN), [2] Department of Microbiology, Tumor And Cell Biology, Karolinska Institutet, Stockholm, 171 77, Sweden, [3] Division of Hematology & Chronic Viral Illness Service, Mcgill University Health Centre, Montréal, H4a 3j1 (CAN), [4] Centre de Recherche du Chum and department of Microbiology, Infectiology and Immunology, Université de Montréal, (CAN)

▶ OP 3.4: Infected naïve cd4+ t cells in children with hiv can proliferate and persist on art

M. Katusiime[1], S. Guo[3], V. Neer[1], S. Patro[3], X. Wu[3], A. Horner[2], A. Chahroudi[2], M. Mavigner[2], M. Kearney[1]

[1] HIV Dynamics and Replication Program, National Cancer Institute, Frederick, (USA), [2] Emory University, School of Medicine, Atlanta, (USA), [3] Genomics Technology Laboratory, National Cancer Institute, Frederick, (USA)

▶ OP 3.5: HIV-1 RNA+ infected CD4 T cell burden in acute HIV-1 infection and association with inflammatory markers

D. Bolton[1], M. Creegan[1], N. Jian[1], B. Slike[1], A. Tokarev[1], J . Ananworanich[1,2], S. Vasan[1,2], D. Hsu[1,2], N. Phanuphak[3], N. Chomont[4], S. Krebs[1,2]

[1] U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, (USA), [2] The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, (USA), [3] Institute of HIV Research and Innovation, Bangkok, Thailand, [4] CRCHUM and Department of Microbiology, Infectiology and Immunology, Université de Montréal, (CAN)

▶ OP 3.6: Effect of HIV-1 infection, viral particle production, and proviral integration site on CD4+ T cell proliferation

J. Kufera[1], C. Armstrong[1], F. Wu[1], A. Singhal[1], H. Zhang[1], J. Lai[1], H. Wilkins[1], F. Simonetti[1], J. Siliciano[1], R. Siliciano[1,2]

[1] Johns Hopkins University School of Medicine, Baltimore, (USA) [2] Howard Hughes Medical Institute, Bethesda, MD, (USA)

▶ OP 3.7: Cohort-specific Adaptation of the Intact Proviral DNA Assay (IPDA) to HIV-1 subtypes A1, D, and recombinants

S. N. Gowanlock[1], D. C. Copertino[2], Pragya Khadka[2], R. Brad Jones[2], Jingo Kasule[3], T. Kityamuweesi[3], P. Buule[3], S. Reynolds[3,4], T. Quinn[4,5], A. D. Redd[4,5], Z. L. Brumme[6,7], J. Prodger[1], G. Q. Lee[2]

[1] Department of Microbiology and Immunology, Western University, London, ON, (CAN), [2] Department of Medicine, Division of Infectious Diseases, Weill Cornell Medicine, New York, NY, (USA), [3] Rakai Health Sciences Program, Kalisizo, Uganda, [4] Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, (USA), [5] Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD, (USA), [6] Simon Fraser University, Burnaby, BC, (CAN), [7] BC Centre for Excellence in HIV/AIDS, Vancouver, BC, (CAN)

04.00
05.00

YOUNG INVESTIGATORS DEDICATED SESSION FOR ORAL PRESENTATIONS

▶ YI 1.1: Histone decrotonylation uniquely regulates HIV-1 transcription and can be modulated to control HIV-1 latency

T. L. Simermeyer[1, 2], D. Li [1, 2], L. M. Wong [1, 2], C. Aquino[1], Y. Tang [1,2], E. P. Browne [1, 2], N. M. Archin [1, 2], D. M. Margolis[1, 2], G. Jiang[1, 2, 3]

[1]UNC HIV Cure Center, Department of Medicine, Chapel Hill, (USA), [2]Institute of Global Health & Infectious Diseases, [3]Department of Biochemistry and Biophysics, University of North Carolina, Chapel Hill, (USA)

► YI 1.2: LAIR-1 is a negative regulator of SIV-specific CD8 T cells during chronic SIV infection

V. Velu[1], S. Govindaraj[1, 2], A. Arunkumar Sharma[2], S. Ali[4], H. Babu[1, 2], K. Busman-Sahay[3], S. Bosinger[1, 2], J. Estes[3], R.-P. Sekaly[2], R. Amara[1, 2], F. Villinger[4]

[1]Division of Microbiology and Immunology, Emory Vaccine Center, Emory National Primate Research Center, Emory University, Atlanta, (USA), [2]Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, GA, (USA), [3]Vaccine and Gene Therapy Institute, Oregon National Primate Research Center, Oregon Health & Science University, Beaverton, Oregon, (USA), [4]New Iberia Research Center, University of Louisiana at Lafayette, New Iberia, Louisiana, (USA)

► YI 1.3: Continuous decline of intact proviral DNA after two decades of antiretroviral therapy

M. Nühn[1], J. Symons[1], K. Bosman[1], K. Tesselaar[2], J.A.M. Borghans[2], T. Huisman[3], A. Hoepelman[4], R.J. De Boer[3], A. Wensing[1], M. Nijhuis[1]

[1]Translational Virology, Department of Medical Microbiology, University Medical Center Utrecht, Utrecht, The Netherlands, [2]Center for Translational Immunology, University Medical Center Utrecht, Utrecht, The Netherlands, [3]Theoretical Biology, Utrecht University, Utrecht, The Netherlands, [4]Department of Internal Medicine And Infectious Diseases, University Medical Center Utrecht, Utrecht, The Netherlands

► YI 1.4: The HIV-1 antisense RNA Ast promotes viral latency via epigenetic silencing of the proviral 5'LTR and is expressed in latently infected cells from ART-suppressed donors

F. Romerio[1], R. Li[1], R. Sklutuis[2], J. Groebner[2], M. Kearney[2]

[1]Department of Molecular and Comparative Pathobiology, Johns Hopkins University School of Medicine, Baltimore, (USA), [2]HIV Dynamics and Replication Program, Host-Virus Interaction Branch, National Cancer Institute, National Institutes of Health, Frederick, MD, (USA)

► YI 1.5: CAR/CXCR5 T cells contact HIV vRNA+ cells in HIV-infected humanized DRAGA mice

P. Pumtang-On[1], E. Sevcik[1], B. Davey[1], N. Goodarzi[1], V. Vezys, S. Casares[3], M. Rao[4], P. Skinner[1]

[1]Department of Veterinary and Biomedical Sciences, University of Minnesota, St. Paul, Minnesota, (USA), [2]Center for Immunology, Department of Microbiology and Immunology, University of Minnesota, Minneapolis, Minnesota, (USA), [3]Infectious Diseases Directorate, Agile Vaccines and Immunotherapeutics, Naval Medical Research Center, Silver Spring, Maryland, (USA), [4] Laboratory of Adjuvant and Antigen Research, (USA) Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, Maryland, (USA)

► YI 1.6: Multiomic dynamics of the cellular HIV reservoir after rebound during ATI

V. Wu[1] , J. Nordin[1] , S. Nguyen[2] , K. Bar[1] , L. Vella[3], M. Betts[1]

[1]University of Pennsylvania, (USA), [2]Massachusetts Institute of Technology, (USA), [3]Children's Hospital of Philadelphia, (USA)

05.00
07.30

POSTER VIEWING SESSION WITH WINE AND CHEESE TASTING

07.30 PM - DINNER ON YOUR OWN

THURSDAY, DECEMBER 15, 2022

08.00 10.00

SESSION 4: IMMUNOLOGY OF HIV PERSISTENCE

Chairs:
Katharine Bar, Attending Physician, Infectious Diseases, Hospital of the University of Pennsylvania
Physician, International Travel Medicine Clinic, Perelman Center for Advanced Medicine
Director, Penn CFAR Viral and Molecular Core, Philadelphia, (USA)
Bradley Jones, Infectious Diseases Division, Department of Medicine, Weill Cornell Medical College, New York, (USA), Department of Microbiology and Immunology, Weill Cornell Graduate School of Medical Sciences, New York, (USA)

► **OP 4.1: Viral persistence and NK cells**
Lecturer: Michaela Muller-Trutwin, Institut Pasteur; HIV, Inflammation and Persistence Unit; University Paris-Cité; Paris, (FRA)

► **OP 4.2: Cytolytic CD8+ T cells infiltrate germinal centers and limit HIV replication in spontaneous controllers**
D. R. Collins[1,2,#], Julia Hitschfel[1,3,#], B. D. Walker[1,2,4]
[1] Ragon Institute of MGH, MIT and Harvard, Cambridge, MA, (USA), [2] Howard Hughes Medical Institute, Chevy Chase, MD, (USA), [3] Institute of Clinical and Molecular Virology, Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen, (DE), [4] Institute for Medical Engineering and Sciences and Department of Biology, Massachusetts Institute of Technology, Cambridge, MA, (USA)
[#] *These authors contributed equally*

► **OP 4.3: Leaky reservoirs are associated with HIV-specific cd4 and CD8 T-cell responses**
M. Dube[1], O. Tastet[1], N. Brassard[1], G.G. Ortega-Delgado[1], A. Pagliuzza[1], A. Prat[1,4], J.P. Routy[2], R. Fromentin[1], N. Chomont[1,4], D. Kaufmann[1,3,4], G.Sannier[1]
[1] CRCHUM, Montreal, (CAN), [2] Mcgill University, Montreal, (CAN), [3] CHUV and University of Lausanne, Switzerland, [4] University of Montreal, Montreal, (CAN)

► **OP 4.4: HIV reservoir burden associates with numbers of HIV-specific CD8+ T cells under long-term antiretroviral therapy and prevents them from differentiating into functional memory cells**
H. Takata[1], J. Mitchell[1], C. Sacdalan[2], N. Chomont[3], L. Trautmann[1], A. Pagliuzza[3], J. Kakazu[4,5], S. Pinyakorn[4,5], N. Phanuphak[2], S. Vasan[4,5], D. Hsu[4,5]
[1] Vaccine And Gene Therapy Institute, Oregon Health & Science University, Beaverton, (USA), [2] Institute of HIV Research and Innovation, Bangkok, Thailand, [3] Centre de Recherche du CHUM And Department of Microbiology, Infectiology and Immunology, Université de Montréal, Montréal, (CAN),[4] U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, (USA), [5] The Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, (USA)

► **OP 4.5: Comparative single-cell transcriptome and TCR profiling of HIV infected cells in the blood and cerebrospinal fluid of PLWH before and after ART**
M. Wang[1], M. Corley[2], J. Yoon[3], J. Chiarella[3], J. Cyktor[4] , S. Spudich[3], Y. Kluger[3], S. Farhadian[3]
[1] Yale University, New Haven, (USA), [2] Weill Cornell Medicine, New York, (USA), [3] Yale School of Medicine, New Haven, (USA), [4] University of Pittsburgh, Pittsburgh, (USA)

► **OP 4.6: No associations between magnitudes of HIV-specific CTL responses on stable art and subsequent decay of intact proviruses or cell-associated HIV mRNA**
A. Ward[1], D. Copertino[1], E. Stevenson[1], E. McNeil[1], U. Chukwukere[1], R. Gandhi[2], D. McMahon[3], R. Bosch[4], J. Mellors[3], B. Jones[1], B. J. Macatangay[3], J.C. Cyktor[3], J. J. Eron[5]
[1] Division of Infectious Diseases, Department of Medicine, Weill Cornell Medicine, New York, (USA), [2] Division of Infectious Diseases, Massachusetts General Hospital, Boston, MA, (USA) [3] Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA, (USA) [4] Center for Biostatistics in AIDS Research, Harvard T.H. Chan School of Public Health, Boston, MA, (USA), [5] Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, NC, (USA)

► **OP 4.7: Circulating immune predictors of intact hiv reservoir decay during long-term art**

M. Peluso[1], S. Serrano-Villar[1], A. Gala[2], P. Bacchetti[1], C. Digermanio[1], L. Cohn[3], P. Hunt [1], G. Laird[4], S. Pillai[1], S. Deeks[1]
[1] UCSF San Francisco, (USA), [2] Vitalant Research Institute, San Francisco, (USA), [3] Fred Hutch, Seattle, (USA), [4] Accelevirdx, Baltimore, (USA)

► **OP 4.8: CD8+ T cells promote hiv latency in CD4+ T cells through the downmodulation of NF-kB**

S. Mutascio[1], H. Wang[1], M. Paiardini[1,2], G. Silvestri[1,2], D. Kulpa[1,2]
[1] Division of Microbiology and Immunology, Emory National Primate Research Center, Emory University, Atlanta, GA, (USA), [2] Department of Pathology and Laboratory Medicine, Emory University School of Medicine, Atlanta, GA, (USA)

10:00 – 10:30 AM - COFFEE BREAK

10.30
12.30

SESSION 5: DRUG DISCOVERY DEVELOPMENT & PHARMACOLOGY

Chairs:
Romas Geleziunas, Executive Director of Biology at the Gilead Sciences, McGill University - Foster City, (USA)
Jan Van Luzen, MD, PhD, Professor of Medicine, Radboud University Medical Center, Nijmegen, The Netherlands

► **OP 5.1: IAP inhibitors to induce HIV expression**
Lecturer: Richard Dunham, Scientific Leader and Fellow at ViiV Healthcare; Adj Asst Professor at UNC-CH Région de Raleigh-Durham, NC, (USA)

► **OP 5.2: Characterization of a dual PTPN1/PTPN2 inhibitor to target latent HIV reservoirs**

A. Bosque[1], J. N. Howard[1], T. D. Zaikos[1], C. Levinger[1], E. McMahon[1], H.Takata[2], E. Rivera[1], D. C Copertino[3], W. Wang[1], M. Sanz-Perez[1], X. Arias-Moreno[1], N. Soriano-Sarabia[1], R. Brad Jones[3], L. Trautmann[2], A. Bosque[1]
[1] Department of Microbiology, Immunology and Tropical Medicine, George Washington University, Washington, (USA), [2] Vaccine and Gene Therapy Institute, Oregon Health & Science University, Beaverton, OR, (USA), [3] Department of Medicine, Weill Cornell Medical College, New York, (USA)

► **OP 5.3: 1-year treatment with ponatinib provides protection of CD4+ T cells against HIV that is maintained at least 1 year more after treatment interruption**

M. Manzanares[1], F. Ramos-Martín[1], G. Casado-Fernández[1,2,3], M. Torres[1], E. Mateos[1], L. Vigón[1], S. Rodríguez-Mora[1,3], V. García-Gutiérrez[5], V. Planelles[4], M. Coiras[1,3]
[1] Immunopathology Unit, National Center of Microbiology, Instituto de Salud Carlos III, Madrid, (ES), [2] Faculty of Sciences, Universidad de Alcalá, Madrid, (ES), [3] Biomedical Research Center Network in Infectious Diseases, CIBERINFEC, Instituto de Salud Carlos III, Madrid, (ES), [4] Division of Microbiology and Immunology, Department of Pathology, University of Utah School of Medicine, Salt Lake City, Utah, (USA), [5] Hematology and Hemotherapy Service, Instituto Ramón y Cajal de Investigación Sanitaria, IRYCIS, Hospital Universitario Ramón y Cajal, Madrid, (ES)

► **OP 5.4: Identification and characterization of novel inhibitors of HIV Tat protein**

S. Mediouni Jablonski[1], J. A. Jablonski[1], L. Shuang[1], P. Espinoza-Gonzales[1], F. Ryubal[1], S. Zhang[2], C. Augelli-Szafran[2], R. Ptak[2], S. M.Schader[3], S. T. Valente[1]
[1] Department of Immunology and Microbiology, UF Scripps Biomedical Research, 130 Scripps Way, 3C1, Jupiter, FL 33458, (USA), [2] Drug Discovery Division, Chemistry Department, Southern Research, Birmingham, Alabama, (USA).[3] ViiV Healthcare, 410 Blackwell Street,, Durham, NC 27701, (USA)

▶ **OP 5.5: Impairment of HIV proviral reactivation by interfering with essential metabolic pathways in effector memory CD4+ T cells**

G. Casado Fernández[1,2,3], M. Martínez Velasco[4], S. Rodríguez-Mora[1,3], M. Torres[1], M. Cervero[5], C. Hoffmann[6], C. Wyen[7], E. San José[4], V. Planelles[8], M. Coiras[1,3]

[1] Immunopathology Unit, National Center of Microbiology, Instituto de Salud Carlos III, Madrid, (ES), [2] Faculty of Sciences, Universidad de Alcalá, Madrid, (ES), [3] Biomedical Research Center Network in Infectious Diseases (CIBERINFEC), Instituto de Salud Carlos III, Madrid, (ES), [4] Health Sciences Department, Faculty of Biomedical and Health Sciences, Universidad Europea de Madrid, Madrid, (ES), [5] Internal Medicine Service, Hospital Universitario Severo Ochoa, Madrid, (ES), [6] ICH Study Center, Hamburg, (DE), [7] Department of Medicine I, University Hospital of Cologne, Cologne, (DE), [8] Division of Microbiology and Immunology, Department of Pathology, University of Utah School of Medicine, Salt Lake City, Utah, (USA)

▶ **OP 5.6: Enhancing PKC Modulator HIV Latency Reversing Agents**

M. Marsden[1], J. Moran[1], V. Pham[1], J. Kim[2], P. Wender[3], J. Zack[2]

[1] University of California, Irvine, (USA), [2] University of California Los Angeles, Los Angeles, (USA), [3] Stanford University, Stanford, (USA)

▶ **OP 5.7: Romidepsin in combination with the BCL-2 antagonist venetoclax synergistically reduce the size of the HIV reservoir**

Y. Kim[1], C. Tumpach[1], J. Ong[1], A. Solomon[1], J. McMahon[2], P. Arandjelovic[3], M. Pelligrini[3], M. Roche[1], S. Lewin[1,2]

[1] The University of Melbourne At The Peter Doherty Institute of Infection And Immunity, Melbourne, Australia, [2] The Alfred Hospital And Monash University, Department of Infectious Disease, Melbourne, Australia, [3] The Walter and Eliza Hall Institute of Medial Research, Melbourne, Australia

12:30 – 02:00 PM - LUNCH

02.00
04.00

SESSION 6: CELL & GENE THERAPIES

Chairs: Javier Martinez-Picado, ICREA Research Professor at Institut de Recerca de la Sida - IrsiCaixa, Barcelona, (SPA)
Tricia Burdo, Vice Chair, Department of Microbiology, Immunology and Inflammation, Professor, Microbiology, Immunology and Inflammation, Professor, Center for Neurovirology & Gene Editing, Professor, Neural Sciences Philadelphia, (USA)

▶ **OP 6.1: It's a mountain not a hill: Progress made in realizing AAV-delivered inhibitors for an HIV cure**
Lecturer: Mathew Gardner, Division of Infectious Diseases, Department of Medicine, Emory University, Division of Microbiology and Immunology, Emory National Primate Research Center, Jupiter, (USA)

▶ **OP 6.2: Targeted genome engineering of human t cells in vivo for HIV cure**

P. Kumar[1], J. Beloor[1], J. Krishnaswamy[1], I. Ullah[1], P. Uchil[1]

[1] Department of Internal Medicine, Section of Infectious Diseases, Yale University School of Medicine, New Haven, Connecticut, (USA)

▶ **OP 6.3: Delivery and long-term expression of CCR5-blocking monoclonal antibody Leronlimab with AAV for ART-free remission from SHIV viremia**

G. Webb[1], H. Wu[1], C. Waytashek[1], C. Boyle[1], J. Smedley[2], J. Zikos[3], D. Magnani[3], S. Fuchs[4], R. Desrosiers[4], J. Sacha[1]

[1] Oregon Health And Science University, Beaverton, (USA), [2] Oregon National Primate Research Center, Beaverton, (USA), [3] Massbiologics, Boston, (USA), [4] University of Miami, Miami, (USA)

▶ OP 6.4: High-efficiency CRISPR/Cas9-mediated disruption of ccr5 in human hematopoietic stem progenitor cells generates HIV-refractory immune systems

D. Claiborne[1], Z. Detwiler[2], K. Okawa[3], T. Bateson[3], T. Chen[3], D. Scadden[4], C. Boutwell[3], T. Allen[3]
[1] Wistar Institute, Philadelphia, PA, (USA), [2] CRISPR Therapeutics, Cambridge, MA, (USA), [3] Ragon Institute of MGH, MIT and Harvard, Cambridge, MA, (USA), [4] Department of Stem Cell and Regenerative Biology, Harvard University, Cambridge, MA, (USA)

▶ OP 6.5: Nanobody-engineered AAV vectors for CD4-targeted gene therapy

U. Lange[1], M. Hamann[1], D. Foth[1], P. Kumar[2] , U. C. Lange[1,3]
[1] Leibniz Institute of Virology, Hamburg, (DE), [2] Yale School of Medicine, New Haven, (USA),[3] Institute for Infection Research and Vaccine Development, University Medical Center Hamburg, Eppendorf, Hamburg, (DE)

▶ OP 6.6: Viral Suppression in SHIV-infected Rhesus Macaques following AAV-mediated Delivery of Closer-to-germline Monoclonal Antibodies

J. Martinez-Navio[1], S.P. Fuchs[1], D.E. Mendes[1], C.P. Ramos Muniz[1], E.G. Rakasz[2], G. Gao[3], J.D. Lifson[4], R.C. Desrosiers[1]
[1] Department of Pathology & Laboratory Medicine, Miller School of Medicine, University of Miami, Miami, (USA), [2] Wisconsin National Primate Research Center, University of Wisconsin , Madison, (USA), [3] Gene Therapy Center, University of Massachusetts Medical School Worcester, (USA), [4] Aids And Cancer Virus Program, Frederick National Laboratory For Cancer Research, Frederick, (USA)

▶ OP 6.7: Long-term ART-free SIV Remission Following Allogeneic Hematopoietic Cell Transplantation in Mauritian Cynomolgus Macaques

H. Wu[1], M. Kumar[2], E. Fray[2], R. Siliciano[2], J. Smedley[1], G. Meyers[1], R. Maziarz[1], B. Burwitz[1], J. Stanton[1], J. Sacha[1],W. Weber[1], C. Waytashek[1], C. Boyle[1], K. Bateman[1], J. Reed[1], J. Hwang[1], C. Shriver-Munsch[1], M. Northrup[1], K. Armantrout[1], H. Price[1], M. Robertson-LeVay[1], S. Uttke[1], S. Junell[1], C. Moats[1], R. Bochart[1], J. Sciurba[1], B. Bimber[1], M. Sullivan[1], B. Dozier[1], R. MacAllister[1], T. Hobbs[1], L. Martin[1], J. Siliciano[2], M. Axthelm[1]
[1] Oregon Health and Science University, Portland, Oregon, (USA), [2] Johns Hopkins University School of Medicine, Baltimore, MD, (USA)

04.00
05.00

YOUNG INVESTIGATORS DEDICATED SESSION FOR ORAL PRESENTATIONS

▶ YI 2.1: Bispecific antibodies promote natural killer cell-mediated elimination of the HIV reservoir

N. Board[1], F. Wu[1], M. Moskovljevic[1], M. Ravi[1], S. Sengupta[1], F. Simonetti[1], L. Montaner[2], S. Deeks[3], J. Siliciano[1], R. Siliciano[1]
[1]Department of Medicine, The Johns Hopkins University School of Medicine, Baltimore, MD, (USA), [2]The Wistar Institute, Philadelphia, PA, (USA), [3]Department of Medicine, University of California San Francisco, San Francisco, CA, (USA)

▶ YI 2.2: Investigating the Role of Naïve CD4+ T-cells as a CTL Resistant Sanctuary for Intact HIV Proviruses

J. Weiler[1], W. D. Conce Alberto[1], Y. Ren[1], S. Han Huang[1], L. Leyre[1, 2], A. Gramatica[1], S. Terry[1], R. Brad Jones [1, 2]
[1]Infectious Disease Division, Weill Cornell Medicine, New York, (USA), [2]Immunology and Microbial Pathogenesis Program, Weill Cornell Graduate School of Medical Sciences, New York, NY, (USA)

▶ YI 2.3: Impact of early antiretroviral therapy on tissue resident myeloid cells in the liver and lung of SIV-infected rhesus macaques

J. Clain[1], H. Rabezanahary[1], G. Racine[1], C. Joly Beauparlant[1], A. Droit[1], O. Zghidi-Abouzid[1], J. Estaquier[1]
[1]Centre de recherche du CHU de Québec-Université Laval, Québec, (CAN)

▶ YI 2.4: HIV persistence and latency in microglia: Single-cell transcriptome analysis of three humanized mice models of HAND shows viral responses to inflammatory signaling

K. Leskov[1], N. Llewellyn[2], H. Gao[3], S. Sreeram[1], F. Ye[1], Y. Garcia[1], L. Shan[3], P. Cannon[2], J. Karn[1]
[1]Case Western Reserve University, Cleveland, (USA), [2]University of Southern California, Los Angeles, (USA), [3]Washington University In St. Louis, St. Louis, (USA)

► YI 2.5: Distinct HIV-1 resistance profiles against bnab in intact vs defective viral genomes

E. E. Giorgi[1], P. Khadka[2], E. Benko[3], C. Kovacs[3], R. Goswami[2], G. G. Fouda[2], S. R. Permar[2], M. Caskey[4], R. Brad Jones[2], G. Q. Lee[2]

[1]Fred Hutchinson Cancer Center, Seattle, WA, (USA), [2]Weill Cornell Medicine, New York, NY, (USA), [3]Maple Leaf Medical Clinic, Toronto, (CAN), [4] Rockefeller University, New York, (USA)

► YI 2.6: Investigating Short-Term Effects of COVID-19 mRNA Vaccination on Plasma Viremia and Intact HIV Reservoir Size in Individuals Receiving Antiretroviral Therapy (ART)

M. C Duncan[1, 2], F H. Omondi[1, 2], N. N Kinloch[1, 2], H. R Lapointe[2], S. Speckmaier[2], N. Moran-Garcia[2], C. F Lowe[3, 4], M. G. Romney[3, 4],T. Lawson[3], M. Harris[2, 5], M. A. Brockman[1, 6], Z. L. Brumme[1,2]

[1]Faculty of Health Sciences, Simon Fraser University, Burnaby, (CAN), [2]BC Centre for Excellence in HIV/AIDS, Vancouver, (CAN), [3]Division of Medical Microbiology and Virology, St. Paul's Hospital, Vancouver, (CAN), [4]Department of Pathology and Laboratory Medicine, University of British Columbia, Vancouver, (CAN), [5]Faculty of Medicine, University of British Columbia, Vancouver, (CAN), [6]Department of Molecular Biology and Biochemistry, Faculty of Science, Simon Fraser University, Burnaby, (CAN)

► YI 2.7: The level of cell activation is associated with the pre-integrative latency of HIV linear DNA

H.M. Roux[1], S. Figueiredo[1], L. Sareoua[1], M. Salmona[2,3,4,5], J. Hamroune[1], L. Adoux[1], J. Migraine[2], F. Clavel[3,5], R. Cheynier[1], F. Clavel[3,5], R. Cheynier[1], J. Dutrieux[1,7]

[1] Université de Paris, Institut Cochin, INSERM, U1016, CNRS, Paris, (FRA), [2] INSERM, Tours, (FRA), [3] Université de Paris, Paris, (FRA), [4] INSERM U976, Paris, (FRA), [5] Assistance Publique Hôpitaux de Paris, Hôpital Saint Louis, Laboratoire de Virologie, Paris, (FRA), [6] INSERM U941, Paris, (FRA), [7] Viral DNA Integration and Chromatin Dynamics Network (DyNAVir)

05.00 07.30 **POSTER VIEWING SESSION WITH WINE AND CHEESE TASTING**

7:30 PM - DINNER ON YOUR OWN

FRIDAY, DECEMBER 16, 2022

08.00 10.00

SESSION 7: HUMAN STUDIES

Chairs: Lydie Trautmann, Associate Professor, OHSU, Vaccine & Gene Therapy Institute, Beaverton , (USA)
David Margolis, University of North Carolina, Chapell Hill – (USA)

▶ OP 7.1: Challenges and Advances in Identification and Immune Targeting of HIV-Infected Cells: Implications for HIV Cure Therapies
Lecturer: Timothy Henrich, Associate Professor of Medicine at University of California, San Francisco, CA, (USA)

▶ OP 7.2: Impact of 10-1074LS and 3BNC117-LS on viral rebound dynamics following treatment interruption six months after dosing: four cases from the open label arm of the RIO trial
M. Lee[1], S. Collins[2], S. Kinloch[3], J. Fox[4], K. Seaton[5], G. Tomaras[5], M. Caskey[6], M. Nussenzweig[6], J. Frater[7,#], S. Fidler[1,#]
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 # These authors contributed equally to this work

▶ OP 7.3: Pre-treatment Interruption Plasma Metabolites and Glycans Correlate with Time to HIV Rebound and Reservoir Size in ACTG A5345
L. B Giron[1], X. Yin[1], S. G. Deeks[3], R. T. Gandhi[4], A. Landay[5], Q. Liu[1], B. J. Macatangay[6], D. M. Smith[7], J. Z. Li[2], M. Abdel-Mohsen[1]
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▶ OP 7.4: Series of Jojo. A way to disseminate HIV Cure information in a community language
J. Nabukenya[1]
[1] Miles of Smiles Foundation, Uganda, MUJHU Research Collaboration, Uganda.
Josephine Nabukenya is a young person living with HIV and a founder of Miles of Smiles Foundation a youth led non-government organisation in Uganda that is aimed at creating a smile on every young person. She also supports the social support division to design and implement psychosocial support activities for young people living with HIV at MUJHU Research Collaboration and a published author of Beyond your status, thriving in life inspite of HIV.

▶ OP 7.5: Measuring the impact of early 3BNC117 intervention at ART initiation on the productive reservoir in a cohort of diverse viral subtypes: results from the VIP-SPOT assay in the eCLEAR trial
M. C. Puertas[1], J. D. Gunst[2,3], M. H. Pahus[2,3], N. N. Kinloch[4,5], D. C. Copertino[6,7], Adam R. Ward[6,7], Z. L. Brumme[4,5], R. Brad Jones[6,7], M. Tolstrup[2,3], S. Fidler[8,9], O. S. Søgaard[2,3], J. Martinez-Picado[1]
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▶ **OP 7.6: Clonal Dynamics within HIV-Infected CD4 T Cell Reservoirs after PD-1 Blockade under ART**
L. Perez[1], L. Reoma[2], S. Patro[3], P. Mudvari[1], B. Luke[3], B. Smith[2], S. Yukl[4], M. Kearney[3], A. Nath[2], E. Boritz[1]
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▶ **OP 7.7: Characterization of the HIV-1 Viral Reservoir in Subtype B Early Treated Individuals**
T. Struyve[1], M. Pardons[1], L. Termote[1], J. De Clercq[1], L. Lambrechts[1], J. Vega[2], D. Boden[3], M. Lichterfeld[4], S. Rutsaert[1], L. Vandekerckhove[1]
[1] HIV Cure Research Center, Ghent University, Ghent, Belgium, [2] Arcturus Therapeutics, Science Center Drive, San Diego, California, (USA), [3] Janssen Biopharma, Johnson and Johnson, South San Francisco, (USA), [4] Ragon Institute of MGH, MIT and Harvard, Cambridge, Massachusetts, (USA)

10:00 – 10:30 AM - COFFEE BREAK

10.30
12.00

SESSION 8: ANTIBODY & IMMUNE BASED THERAPIES

Chairs: Marina Caskey, Weill Cornell Medical College, New York, (USA) and Michael Farzan, Professor and co-chair of the Department of Immunology and Microbiology on the Florida campus of The Scripps Research Institute, FL, (USA) San Diego, (USA)

▶ **OP 8.1: Broadly Neutralizing Antibodies for HIV Prevention, Therapy and Cure: 3BNC117 & 10-1074 Studies**
Lecturer: Marina Caskey, Weill Cornell Medical College, New York, (USA)

▶ **OP 8.2: Interleukin-2 administration is a potent latency reversal agent in people with treated HIV infection**
M. Freeman[1], B. Clagett[1], D. Moisi[1], K. Leskov[1], J. Karn[1], G. Laird[2], S. Sieg[1], J. Jacobson[1], B. Rodriguez[1,3], M. Lederman[1]
[1] Case Western Reserve University, Cleveland, OH, (USA),[2] Accelevir Diagnostics, Baltimore, MD, (USA),[3] Deceased

▶ **OP 8.3: HIV-vaccine induced, broad and polyfunctional CD4 and CD8 T cell responses are associated with prolonged time off ART and lower pVL at the end of ATI in the AELIX-002 therapeutic vaccine trial**
B. Mothe[1], L. Bailon[2], A. Llano[3], Y. Alarcon-Soto[4], C. Brander[5]
[1] Infectious Diseases Department & Irsicaixa, Hospital Germans Trias I Pujol, Badalona, (ES), [2] Infectious Diseases Department & Fight Infections Foundation, Hospital Germans Trias I Pujol, Badalona, (ES), [3] Irsicaixa Aids Research Institute, Hospital Germans Trias I Pujol, Badalona, (ES), [4] Fight Infections Foundation, Hospital Germans Trias I Pujol, Badalona, (ES), [5] Irsicaixa Aids Research Institute, (ES), Hospital Germans Trias I Pujol. Aelix Therapeutics, Sl, Badalona, (ES)

▶ **OP 8.4: TLR agonist and SIV mAbs administered to SIV-infected ART-suppressed macaques did not delay rebound after treatment interruption**
H. King[1,2,3], D. Brammer[3], C. Lehman[3], M. Roederer[3], D. Bolton[1,2], R. Mason[3], K. Song[3], K. Foulds[3], J. Lifson[4], P. Darrah[3], R. Geleziunas[5]
[1] U.S. Military HIV Research Program, Walter Reed Army Institute of Research, Silver Spring, MD, (USA), [2] Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc., Bethesda, MD, (USA), [3] Vaccine Research Center, NIAID, NIH, Bethesda, MD, (USA), [4] AIDS and Cancer Virus Program, Frederick National Laboratory, Frederick, MD, (USA), [5] Gilead Sciences, Foster City, CA, (USA)

▶ **OP 8.5: TGF-beta Blockade to Stop HIV White Noise: a New "Release and Kill" HIV Strategy**

E. Martinelli[1], M. R Haque [1], J. Kim[1], S. Samer[1], Y. Thomas[1], D. Bose[2], B. Keele[3], R. Lorenzo-Redondo[4,5], T. J. Hope[1], F. J. Villinger[2]

[1] Cell and Developmental Biology, Feinberg School of Medicine, Northwestern University, Chicago, IL, (USA), [2] New Iberia Research Center, University of Louisiana at Lafayette, New Iberia, LA, (USA), [3] AIDS and Cancer Virus Program, Frederick National Laboratory for Cancer Research, Frederick MD, (USA), [4] Department of Medicine, Division of Infectious Diseases, Feinberg School of Medicine, Northwestern University, Chicago, IL, (USA), [5] Center for Pathogen Genomics and Microbial Evolution, Northwestern University Havey Institute for Global Health, Chicago, IL, (USA)

▶ **OP 8.6: Autologous neutralizing antibody responses in bnAb-treated rhesus macaques**

K. Bar[1], E. Viox[2], R. Krause[1], E. Lindemuth[1], W. Jin[3], S. Docken[3], S. Mallick[1], M. Paiardini[2]

[1] University of Pennsylvania, Philadelphia, (USA), [2] Emory University, Atlanta, (USA), [3] Kirby Institute, Sydney, Australia

▶ **OP 8.7: In vivo evolution of env in SHIV-AD8-infected rhesus macaques after AAV-eCD4-Ig therapy**

D. O'hagan[1], S. Shandilya[1], P. Hahn[1], M. Gardner[2], M. Farzan[1], A. Ardeshir [1] Department of Immunology And Microbiology, Uf Scripps Biomedical Research, Jupiter, (USA), [2] Department of Medicine, Emory University, Atlanta, (USA), [3] California National Primate Research Center, University of California, Davis, (USA)

12.30
13.00

CLOSING CEREMONY

David Margolis, University of North Carolina, Chapel Hill, NC - (USA)
Karl Salzwedel, National Institute of Allergy and Infectious Diseases, Division of AIDS, Bethesda, (USA)
Mario Stevenson, University of Miami Leonard School of Medicine, Miami, (USA)

POSTER PRESENTATION

Poster presenters are asked to stand next to their posters during the wine & cheese tasting:

▶ Wednesday, December 14th: 5:00 - 7:30 p.m.

▶ Thursday, December 15th: 5:00 - 7:30 p.m.

POSTER THEME

Basic Science of HIV Persistence	PP 1.1 ▶ PP 1.46
In Vitro and Animal Model Studies of HIV Persistence	PP 2.1 ▶ PP 2.17
Virology of HIV Persistence	PP 3.1 ▶ PP 3.20
Immunology of HIV Persistence	PP 4.1 ▶ PP 4.27
Drug Discovery Development & Pharmacology	PP 5.1 ▶ PP 5.6
Cell & Gene Therapies	PP 6.1 ▶ PP 6.6
Human Studies	PP 7.1 ▶ PP 7.14
Antibody & Immune based therapies	PP 8.1 ▶ PP 8.14

The selected abstracts will benefit from a high visibility thanks to their presentation into the open access scientific Journal of Virus Eradication from December 12, 2022

SESSION 1: BASIC SCIENCE OF HIV PERSISTENCE

▶ PP 1.1: TB-associated microenvironment promotes HIV latency in CD4+ T cells

G. Duette[1], A. De Vries-Egan[1], Z. Vahlas[2], M. Sharabas[1], A. Pereyra Casanova[1], C. Melucci[3], P. Pereyra Gerber[4], C. Verollet[2], L. Balboa[5], S. Palmer[1]

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▶ PP 1.2: Structural rearrangements in the nucleus localize latent HIV proviruses to a perinucleolar zone supportive of early transcription reactivation

F. Kizito[1], N. Kien[1], M. Uri[1], S. Meenakshi[1], L. Benjamin[1], C. Mary Ann[1], K. Jonathan[11]

Department of Molecular Biology and Microbiology, School of Medicine, Case Western Reserve University, 10900 Euclid Ave, Cleveland, Ohio, (USA)

▶ PP 1.3: Signaling pathways that activate P-TEFb to reverse HIV latency in CD4+ T cells

U. Mbonye[1], K. Leskov[1], S. Valadkhan[1], J. Karn[1]

[1] Department of Molecular Biology & Microbiology, Case Western Reserve University School of Medicine, Cleveland, (USA), Rustbelt Center for AIDS Research

▶ PP 1.4: Histone decrotonylation uniquely regulates HIV-1 transcription and can be modulated to control HIV-1 latency

T. L. Simermeyer[1, 2], D. Li[1, 2], L. M. Wong[1, 2], C. Aquino[1], Y. Tang[1, 2], E. P. Browne[1, 2], N. M. Archin[1, 2], D. M. Margolis[1, 2], G. Jiang[1, 2, 3]

[1]UNC HIV Cure Center, Department of Medicine, [2]Institute of Global Health & Infectious Diseases, [3]Department of Biochemistry and Biophysics, University of North Carolina at Chapel Hill, Chapel Hill, (USA)

▶ PP 1.5: Mapping of genetic interaction networks identifies a nucleosomal modification complex for silencing HIV

Z. Li[1], M. Ott[1], W. Greene[1,2]

[1] Gladstone Institute of Virology, San Francisco, (USA), [2] University of California, San Francisco, San Francisco, CA 94143, (USA)

▶ PP 1.6: LAIR-1 is a negative regulator of SIV-specific CD8 T cells during chronic SIV infection

V. Velu[1, 2], S. Govindaraj[1, 2], A. Arunkumar Sharma[2], S. Ali4, H. Babu[1, 2], K. Busman-Sahay[3], S. Bosinger[1, 2], J. Estes[3], R.-P. Sekaly[2], R. Amara[1, 2], F. Villinger[4]

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▶ PP 1.7: Continuous decline of intact proviral DNA after two decades of antiretroviral therapy

M. Nühn[1], J. Symons[1], K. Bosman[1], K. Tesselaar[2], J.A.M. Borghans[2], T. Huisman[3], A. Hoepelman[4], R.J. De Boer[3], A. Wensing[1], M. Nijhuis[1]

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▶ PP 1.8: Integrative epigenomic and transcriptomic analysis reveals distinct regulations of mRNAs and lncRNAs in active versus latent HIV-1 infection of T cells

S. Boliar[1], G. Le-Bury[1], Y. Chen[2], J. Rhen[1], A. Singhal[2], D. Russell[1]

[1] Cornell University, Ithaca, (USA), [2] A*star Infectious Diseases Laboratories, Singapore

► PP 1.9: Longitudinal quantification of HIV proviral DNA and host APOBEC3G/-F mRNA expression in cellular subsets that are targeted by HIV-1

N. Reddy[1,4], G. Q. Lee[2], K. Gounder[1,3,4], C. Molechan[1], T. Chikowore[1,5], H. Rodel[1,5], K. Reddy[1,3,4], T. Ndung'u[1,3,4,5]
[1] Africa Health Research Institute (AHRI), Durban, South Africa, [2] Weill Cornell Medicine, New York, (USA), [3] HIV Pathogenesis Programme (HPP), Nelson R. Mandela School of Medicine, University of KwaZulu-Natal, Durban, South Africa, [4] University of KwaZulu-Natal, Durban, South Africa, [5] Division of Infection and Immunity, University College London (UCL), London, UK

► PP 1.10: Isotretinoin enhances IL-15 mediated HIV latency reversal and reduces the inducible latent reservoir

J. Howard[1], C. Levinger[1], W. Wang[1], H. Takata[2], S. Nathanson[2], R. Fromentin[3], N. Chomont[3], L. Trautmann[2], A. Bosque[1]
[1] Department of Microbiology, Immunology, and Tropical Medicine, George Washington University, Washington, (USA), [2] Vaccine and Gene Therapy Institute, Oregon Health and Science University, Beaverton, OR 97006, (USA), [3] Université de Montréal, Centre de recherche du CHUM, Montréal, Canada

► PP 1.11: Selective nuclear retention of spliced and unspliced HIV-1 mRNAs following latency reversal

E. Honeycutt[1], F. Kizito[1], K. Nguyen[1], U. Mbonye[1], M. Shukla[1], J. Karn[1]
[1] Case Western Reserve University, Cleveland, (USA)

► PP 1.12: The lysine methyltransferase SMYD5 amplifies HIV-1 transcription and is post-transcriptionally upregulated by Tat and USP11

D. Boehm[1,2], V. Lam[4], M. Schnolzer[5], M. Ott[1,2,3]
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► PP 1.13: CTL epitopes from structurally important hiv proteins are identified in rebound HIV

E. Lee[1], G. Duette[1], K. Fisher[1], S. Deeks[2], A. Kelleher[3], S. Palmer[1]
[1] Centre For Virus Research, The Westmead Institute of Medical Research, The University of Sydney, Sydney, Australia, [2] Department of Medicine, University of California San Francisco, California, (USA), [3] Kirby Institute, The University of New South Wales, Sydney, Australia

► PP 1.14: Development of an immunocytochemistry assay to quantify the transcriptionally active HIV reservoir

L. Sardo[1] , G. Wu, Y. Li, J. Kristoff, C. Cheney, J. Maxwell, T. Diamond, P. Zuck, C. Balibar, J. Grobler, B. Howell
[1] Merck & Co, Inc., Rahway, NJ, (USA)

► PP 1.15: Proviruses persisting during the initial years of suppressive ART are relatively stable in terms of genetic diversity, clonal composition, and inferred integration date distribution

A. Shahid[1,2], , Z. L. Brumme[1,2]
[1] Faculty of Health Sciences, Simon Fraser University, Burnaby, British Columbia, Canada, [2] British Columbia Centre for Excellence in HIV/AIDS, Vancouver, British Columbia, Canada

► PP 1.16: Single-cell multiomics analysis reveals distinct mechanisms of HIV persistence in memory CD4+ T cell subsets from tissues

J. Frouard[1], X. Luo[1], N. Roan[1]
[1] Gladstone Institute of Virology And Immunology, University of California, San Francisco, (USA)

► PP 1.17: The Ubiquitin Ligase ITCH and CPSF6 Control HIV Transcription

V. Planelles[1], C. Espinel[1], L. Martins[1], A. Spivak[1], Y. Zheng[1]
[1] University of Utah, Salt Lake City, (USA)

► PP 1.18: Machine learning identifies differentiating physicochemical signatures between HIV subtypes in Nef domains associated with host-cell regulation

S. Lamers[1], D. Nolan[1], G. Fogel[2], E. Liu[2], M. Mcgrath[3]
[1] Bioinfoexperts, LLC, Thibodaux, LA, (USA), [2] Natural Selection, Inc., San Diego, CA, (USA), [3] The University of California, San Francisco, CA, (USA)

▶ PP 1.19: Differential decay dynamics of the inducible pool of HIV-1 infected CD4+ T cells and proviral DNA upon ART initiation revealed by the novel VIP-SPOT assay

M. C. Puertas[1,3], M. C. Garcia-Guerrero[1], L. Bailón[2], B. Mothe[1,2,3], P. Coll[1,2,3], J. Moltó[2,3], J. Martinez-Picado[1,3]

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▶ PP 1.20: Signaling pathways that activate P-TEFb to reverse HIV latency in CD4+ T cells

U. Mbonye[1], K. Leskov[1], S. Valadkhan[1], J. Karn[1]

[1] Department of Molecular Biology & Microbiology, Case Western Reserve University School of Medicine, Cleveland, (USA) Rustbelt Center for AIDS Research

▶ PP 1.21: Regulation of HIV-1 persistence by the CARD8 inflammasome

L. Shan[1], Q. Wang[1]

[1] Division of infectious diseases, Washington University School of Medicine, St. Louis, (USA)

▶ PP 1.22: Suppression of CD4+ T-cell-intrinsic immunity by HIV-1 latency-reversing HDACi

J. Kazmierski[1,2], D. Postmus[1,2], E. Wyler[3], C. Fischer[4], K. Meixenberger[5], L. Loyal[6], A. Thiel[6], N. Bannert[5], M. Landthaler[3,7], C. Goffinet[1,2]

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▶ PP 1.23: Long-read sequencing assay allows accurate characterization of the HIV-1 reservoir

L. Lambrechts[1,2], R. Verstraeten[1,2], N. Bonine[1,2], Y. Noppe[1], S. Rutsaert[1], M. Pardons[1], B. Cole[1], L. Vandekerckhove[1] [1] HIV Cure Research Center, Ghent University, Ghent, Belgium, [2] Biobix, Ghent University, Ghent, Belgium

▶ PP 1.24: BET PROTACS Reveal BRD4 Disruption of the 7SK/P-TEFb Equilibrium is Critical for Effective Reactivation of Latent HIV in CD4+ T-cells

A-M. Turner[1], F. Potjewyd[2], S. Falcinelli[3], J. Fox[3], J. Kirchherr[3], B. Allard[3], N. Archin[1], L. James[2], D. Margolis[1]

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▶ PP 1.25: Daily Variations in Residual Viral Transcription in ART-Treated People Living with HIV-1

A. Fert[1,2#], D. Chatterjee[1,2#], T. R. Wiche Salinas[1,2], Y. Zhang[1,2], D. Planas[1,2], A. Cattin[1,2], E. Moreira Gabriel[1,2], L. Raymond Marchand[2], C.-D. Ngassaki-Yoka[1,2], J. Girouard[3], N. Cermakian[4], D. E. Kaufmann[1,2], J.-P. Routy[5], P. Ancuta[1,2]

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Acknowledgment : Amelie Pagliuzza (CR-CHUM), Rémi Fromentin (CR-CHUM) and Nicolas Chomont (UdeM, CR-CHUM) for their contributions in the PCR/RT-PCR to measure HIV-1 transcription levels.

▶ PP 1.26: Understanding HIV transcription in Kaposi's sarcoma tumors during antiretroviral therapy

D. Nolan[1], R. Rebecca[1], F. Gary[2], S. Susanna[1], M. Michael[3]

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▶ PP 1.27: Role of the pol gene enhancer in HIV-1 transcription and replication in myeloid infected cells

C. Van Lint[1] ,O. Hernalsteens[1], R. Verdikt[1], C. Vanhulle[1], A. Saez-Cirion[2]

[1] University of Brussels (ULB), Brussels, Belgium, [2] Institut Pasteur, Université Paris Cité, Paris, (FRA)

▶ PP 1.28: The HIV-1 antisense RNA Ast promotes viral latency via epigenetic silencing of the proviral 5'LTR and is expressed in latently infected cells from ART-suppressed donors

F. Romerio[1], R. Li[1], R. Sklutuis[2], J. Groebner[2], M. Kearney[2]

1 Department of Molecular and Comparative Pathobiology, Johns Hopkins University School of Medicine, Baltimore, (USA), 2 HIV Dynamics and Replication Program, Host-Virus Interaction Branch, National Cancer Institute, National Institutes of Health, Frederick, MD, (USA)

► PP 1.29: The chaperone protein p32 stabilizes HIV-1 Tat and strengthens the p-TEFb/RNAPII/TAR complex promoting HIV transcription elongation

C. Li[1], L. Mori[1,2], S. Lyu[1], Ronald Bronson[1], Adam Getzler[1,2], Matthew Pipkin[1,2], Susana T. Valente[1,2]
[1] Department of Immunology and Microbiology, University of Florida Scripps Biomedical Research, Jupiter, Florida, (USA), [2] The Skaggs Graduate School, The Scripps Research Institute, Jupiter, FL, (USA)

► PP 1.30: Dating HIV-1 reservoir formation in ARV-suppressed Ugandans

E. N. Kankaka[1,2], A. D. Redd[2,3,4], S. J. Reynolds[1,2,3], S. Saraf[3], C. Kirby[2], B. Lynch[3], J. Hackman[3], S. Tomusange[1], T. Kityamuweesi[1], S. Jamiru[1], A. Anok[1], P. Buule[1], D. Bruno[5], C. Martens[5], T. C. Quinn[2,3], J. L. Prodger[6], A. Poon[7]
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► PP 1.31: Chimeric proviral/human transcription events at the BACH2 integration locus in cellular models for chronic HIV infection

U. Lange[1,3], C. Schwarz[1], L. Brauckmann[1], F. Julie[2], N. R. Roan[2]
[1] Leibniz Institute of Virology, Hamburg, (DE), [2] Gladstone Institutes, UCSF, San Francisco, (USA), [3] Institute for Infection Research and Vaccine Development, University Medical Center Hamburg–Eppendorf, Hamburg, (DE)

► PP 1.32: cGAS/STING Signaling Drives HIV-1 Replication in Acutely Infected Macrophages

T. Hanley[1]
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► PP 1.33: Integrated single-cell multi-omic profiling of HIV latency reversal

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► PP 1.34: Intestinal endothelial cells substantially increase HIV infection and latency in resting and activated CD4+ T cells, particularly affecting CCR6+ Th17 subpopulation

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► PP 1.35: A histone deacetylase network regulates epigenetic reprogramming and viral silencing in HIV infected cells

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► PP 1.36: Effect of HIV-1C Transmitted/Founder Viruses 5' LTR and tat Genetic Variation on Viral Reservoir Size and Latency Reversal Potential

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► PP 1.37: Investigating Short-Term Effects of COVID-19 mRNA Vaccination on Plasma Viremia and Intact HIV Reservoir Size in Individuals Receiving Antiretroviral Therapy (ART)

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► PP 1.38: Characterization of SIV infected mast cells in early foci of rebound after ATI and HIV infection of primary mast cells in tissue culture models reveals an important new player in viral persistence and pathogenesis.

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► PP 1.39: The level of cell activation is associated with the pre-integrative latency of HIV linear DNA

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► PP 1.40 :Blood Brain Barrier Pericytes and the Molecular Impact of Active and Latent HIV Infection

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► PP 1.41: Spatial Transcriptomics and the Search for the Latent HIV-1 Cell Niche

D. Dunn [1], L. Iñiguez [1], P. Del Rio [2], K. Newcombe [1], J. Crater [1], D. Copertino Jr. [1], M. De Mulder Rougvie [1], S. Ávila-Ríos [2], D. Nixon [1], R. Furler O'brien [1]

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► PP 1.42: Functional Polarization of Human Monocyte-Derived Macrophage into M1-Proinflammatory Cells Restricts Both HIV-1 and Zika Virus Replication

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► PP 1.43: Evaluating integrated HIV-1 quasispecies using Near Full Length sequencing in ART-suppressed individuals in the Drexel CARES Cohort

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► PP 1.44: Longitudinal evaluation of epigenetic age among people living with HIV (PLWH) undergoing multimodal curative interventions

M. Corley [1], N. Mantovani [2], L. Giron [3], A. Pang [1], J. Galinskas [2], D. Dias [2], J. Hunter [2], A. Savarino [4], R. Diaz [2], L. Ndhlovu [1]

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SESSION 2: IN VITRO AND ANIMAL MODEL STUDIES OF HIV PERSISTENCE

► PP 2.1: Impact of early antiretroviral therapy on tissue resident myeloid cells in the liver and lung of SIV-infected rhesus macaques

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► PP 2.2: Evaluation of an NNRTI-mediated Targeted Activated Cell Kill (TACK) in a Viremic Mouse Model

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► PP 2.3: CD8+ T-Cell Sieving During SIV Reactivation from Latency

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► PP 2.4: Age and biological sex but not sex hormones influence il-15 biological activity

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► PP 2.5: HIV persistence and latency in microglia: Single-cell transcriptome analysis of three humanized mice models of HAND shows viral responses to inflammatory signaling

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► PP 2.6: Probing cell death pathways in response to NNRTI treatment using a THP-1 infection model

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► PP 2.7: Modeling HIV-1 Pathogenesis and Latency in iPSC-Derived Human Cerebral Organoids

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► PP 2.8: Spironolactone Represses HIV-1 Driven Transcription in Human Microglia and T cell Models of Latency and Alters DNA Methylation of Metabolic Genes

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► PP 2.9: Impact of latency reversal agents on estrogen receptor alpha gene and protein expression

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► PP 2.11: Transcriptional and translational SIV profiles of peripheral and lymphoid CD4+ T cells of viremic and ART-suppressed Rhesus macaques

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▶ PP 2.12: eCD4-Ig-DNA Decreased HIV Reservoir and Delayed Viral Rebound Through Fc Mediated Functions in BLT Humanized Mice

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▶ PP 2.13: Enhancing Tolerability and Efficacy of Latency Reversing Agents in "Kick and Kill" HIV Cure Approaches

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▶ PP 2.14: Elucidating the effects of combination therapy with Venetoclax and IAP inhibitor AZD5582 in SIV-infected, ART-suppressed macaques

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▶ PP 2.15: Macrophages are the primary source of virus in semen and male genital tract organs in acutely and chronically infected rhesus macaques

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▶ PP 2.16: Development of a nonhuman primate model to study the immunological effects of feminizing hormone therapy in transgender women

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▶ PP 2.17: Myeloid-derived extracellular vesicle production is upregulated with SHIV.D infection

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SESSION 3: VIROLOGY OF HIV PERSISTENCE

▶ PP 3.1: Development of a digital PCR assay to profile HIV expression at single-infected-cell resolution

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▶ PP 3.2: Differential transcriptional levels of HIV-1 near full-length and highly deleted proviruses

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► PP 3.3: Longitudinal proviral landscape and reservoir dynamics in a unique case of HIV superinfection

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► PP 3.4: HIV-1 clade C reservoir characteristics in early and chronic treated infection

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► PP 3.5: The proviral quasispecies of HIV-1

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► PP 3.6: Heterogeneous associations between HIV genomic integrity and proviral longevity during long-term ART

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► PP 3.7: Genetic variation of the HIV-1 subtype C transmitted/founder viruses long terminal repeat elements and the impact on transcription activation potential and clinical disease outcomes

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► PP 3.8: Characterization of the HIV-1 subtype C reservoir during ART in South-African men and women

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► PP 3.9: Impact of time on antiretroviral therapy on the proviral reservoir in people living with HIV

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► PP 3.10: Vpr synergizes with vorinostat to prevent HIV-1 latency establishment

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► PP 3.11: The chromatin insulator CTCF inhibits HIV gene expression

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► PP 3.12: Distinct HIV-1 resistance profiles against bnab in intact vs defective viral genomes

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► PP 3.13: HIV-1-infected individuals with extremely low reservoir under ART are characterized by reduced viral diversity and higher levels of hypermutations in their viral reservoirs

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► PP 3.14: Ex vivo response to latency reversal agents of CD4+ T cell subsets and monocyte derived HIV-1 subtype C LTR from individuals on suppressive cART

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► PP 3.15: A polyvalent HIV-1 virus-like particle formulation drives the majority of the infectious HIV-1 reservoir out of latency within CD4+ T cells of individuals receiving cART during chronic infection

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► PP 3.16: Prolonged persistence of HIV-infected cells in tissues after allogeneic hematopoietic transplant

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► PP 3.17: Genetic Diversity of HIV-1 Long Terminal Repeat in Proviral Populations During Long-Term Antiretroviral Therapy

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► PP 3.18 : Role of Tunneling Nanotubes-like Structures during the Early Events of HIV Infection and viral reactivation

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► PP 3.19 : The Role of Pannexin-1 channels in HIV infection and persistence

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► PP 3.20 : Epigenetic modifying compounds negatively impact viral replication within primary human macrophages

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SESSION 4: IMMUNOLOGY OF HIV PERSISTENCE

► PP 4.1: Vaccine-mediated induction of elite control-associated CD8+ cytotoxic T lymphocytes in Mamu-B*08+ Indian rhesus macaques does not protect against intrarectal SIVmac239 acquisition

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► PP 4.2: Innate Immune Correlates of Cell-Associated HIV RNA And DNA During Long-Term Suppressive ART

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► PP 4.3: Intra- and extracellular levels of acyl-coA-binding protein and anti-HIV T-cell function in people living with HIV

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► PP 4.4: Quantification of HIV Reservoirs in Brain: focus in bystander damage

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► PP 4.5: Differentiation Enhances Reactivation of Latent HIV-1 Reservoir in CD4+ T Cells in PLWH With > 4 Years of Viral Suppression

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► PP 4.6: Retinoic Acid Transcriptionally Reprograms Macrophages for Increased Permissiveness to HIV-1 Replication

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▶ PP 4.7: Signatures of HIV-Infected CD4+ T Cell Resistance to NK Cell-Mediated Cytotoxicity

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▶ PP 4.8: Presentation of cognate antigens by dendritic cells causes stochastic HIV expression

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▶ PP 4.9: Transcription of Defective HIV Proviruses Trigger Innate Immune Responses

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▶ PP 4.10: Multiomic dynamics of the cellular HIV reservoir after rebound during ATI

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▶ PP 4.11: Autologous Neutralizing Antibodies Increase with Early Antiretroviral Therapy and Shape HIV Rebound after Treatment Interruption

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▶ PP 4.12: Enhancement of IL15/IL15RA signaling in immune cells using CRISPR-dCas9-VPR platform

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▶ PP 4.13: Soluble Factors Drive Naïve CD4+ T Cells to Differentiate into CCR5+ Tissue Resident Memory Cells that are Highly Susceptible to HIV infection

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▶ PP 4.14: Antiretroviral therapy repairs CD4 T cell dysregulation in people living with HIV

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▶ PP 4.15: Distinctive cytoskeletal properties are implicated in the resistance of a fraction of productively HIV-infected CD4+ T-cells to killing by cytotoxic T lymphocytes (CTL)

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► PP 4.16: Investigating the Role of Naïve CD4+ T-cells as a CTL Resistant Sanctuary for Intact HIV Proviruses

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► PP 4.17: Peripheral Blood Biomarkers of Occult Infection in ART-Suppressed, SIV-Infected Rhesus Macaques

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► PP 4.18: Dynamics and antiviral role of TOX+ TCF1+ CD39+ CD8 T cells in lymphoid tissue of siv-infected rhesus macaques

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► PP 4.19: Impact of SARS-COV-2-Mediated CD4 T Cell Activation HIV DNA Persistence In Vivo

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► PP 4.20: A Metabolic Approach to Eradicate HIV brain viral reservoirs

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► PP 4.21: Seeding of long-lived HIV cellular reservoirs through differentiation of infected CCR5+CD4+ T cells into central memory cells

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► PP 4.22: Reversal of exhaustion of HIV-1-specific CTLs by CRISPR-mediated disruption of PD-1 gene

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► PP 4.23: Inhibition of the GSK3 pathway enhances CD8+ T cell stemness and functional capacities without promoting non-cytolytic suppression of HIV transcription

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► PP 4.24: Impact of cannabis use on immune cell populations and the viral reservoir in HIV-infected people on suppressive antiretroviral therapy

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► PP 4.25: The Role of Epigenetics in Mediating Neuronal Circuitry and Maladaptive Neuronal Changes in HIV and Opioid Drug Addiction

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► PP 4.26: Study of reservoir size and telomere length in children with perinatal HIV-1 infection who achieved late viral suppression

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► PP 4.27: Single-cell RNA sequencing reveals CBD genetic signature in monocyte gene expression

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SESSION 5: DRUG DISCOVERY DEVELOPMENT & PHARMACOLOGY

► PP 5.1: Impact of Intrinsic and Extrinsic Factors on the Pharmacokinetics of Long-Acting Lenacapavir for Treatment of HIV

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► PP 5.2: Simulations for Once Weekly Dosing of Oral Lenacapavir

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► PP 5.3: Chemical inhibition of DPP9 sensitizes CARD8 inflammasomes in HIV-1-infected cells

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► PP 5.4: Optimization of Smac Mimetics as HIV-1 Latency Reversing Agents

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► PP 5.5: Targeting Tat/TAR interactions with the superelongation complex for the development of novel treatments for HIV/AIDS

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► PP 5.6: Combination of traditional medicine product (SDK-2) with TNF-alpha synergistically reactivate latent HIV-1 subtype C in vitro

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SESSION 6: CELL & GENE THERAPIES

► PP 6.1: Single cell quantification of hiv-1 and lentiviral vector in gene therapy studies

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► PP 6.2: CAR/CXCR5 T cells contact HIV vRNA+ cells in HIV-infected humanized DRAGA mice

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► PP 6.3: Targeting the human and macaque CCR5 genes using the CRISPR-SaCas9 gene-editing platform.

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► PP 6.4: Construct a series of universal gRNAs targeting various regions within HIV

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► PP 6.5: Utilization of high-throughput assays and deep-learning for selection of CRISPR/Cas9-gRNA pairs used in an HIV-1 cure strategy

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► PP 6.6: Construct a series of universal gRNAs targeting various regions within HIV

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SESSION 7: HUMAN STUDIES

► PP 7.1: Community HIV clinicians' perceptions about HIV cure-related research in the Northwestern (USA)

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► PP 7.2: Acceptability of Home-Based Blood Collection Device for Viral Load Testing in HIV Cure Trials with Analytical Treatment Interruptions

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► PP 7.3: Virion Immunocapture Reveals Low-level Myeloid-derived HIV Expression in Semen under INSTI-based Therapy is Disparate from Circulating Seminal and Blood Proviral Sequences

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► PP 7.4: Acquisition of SARS-CoV-2 infection during an HIV cure study with an ATI period

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► PP 7.5: Changes to microglial genome structure and function in the HIV infected brain

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▶ PP 7.6: Single cell transcriptomics identifies PTMA as a host gene that inhibits HIV during acute infection in vivo

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▶ PP 7.7: Temporary increase in circulating replication-competent latent HIV-infected resting CD4+ T cells after switch to a Dolutegravir-based antiretroviral regiment

R.-C. Ferreira1,2, S. J. Reynolds[3,4,5], Adam A. Capoferri[3], S. N. Gowanlock[1], O.R. Baker[3], J. Miller[3], E. E. Brown[4], S. Saraf[4], C. Kirby[3], B. Lynch[4], J.Hackman[4], J.Lai[3], S. Tom(USA)nge[5], T. Kityamuweesi[5], S.Jamiru[5], A. Anok[5], P. Buule[5], D. Bruno[6], C. Martens[6], R. Rose[7], S. L. Lamers[7], R. Galiwango[5], A. Poon[2], T. C. Quinn[3,4], J. L. Prodger[1,2,3], A. D. Redd[3,4,8]
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▶ PP 7.8: Slowing or Reversal of Decay of Intact Proviruses Over Two Decades of Suppressive ART

J. Cyktor[1], R. Gandhi[2], R. Bosch[3], H. Mar[3], G. Laird[4], E. Halvas[1], L. Brandt[1], D. Mcmahon[1], J. Eron[5], J. Mellors[1], L. Hovind[6], S. Riddler[1], K. Ritter[4]
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▶ PP 7.9: HIV-1 Cell-Associated RNA Provides 0.8 Prediction Accuracy for Time to Rebound after Treatment Interruption

J. L. Huie[1], C. Zhou, A.J. Greenberg, J.A. Nichols
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▶ PP 7.10: Macrophage-Tropic HIV-1 Variants Contribute to Pediatric Rebound Viremia off ART

K. Ganta[1], C. Zhou[1], A.J. Greenberg[1], J.A. Nichols[1], J.L. Huie[1], T.Macatee[1], E. Chambers[1], R. Brody[1], E. Szomolanyi-Tsuda[1], M. McManus[1], K. Luzuriaga[1], D. Persaud[2]
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▶ PP 7.11: In vivo and in vitro imaging of viral reservoirs to understand bystander damage during chronic HIV infection

E. Eugenin[1]
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▶ PP 7.12: The immune synapses reveal aberrant functions of CD8 T cells during chronic HIV infection

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▶ PP 7.13: Early evolution of HIV-1 from transmitted founders during acute infection

V. Boltz[1], W. Shao[6], A. Capoferri[1], M. Rolland[2], N. Phanuphak[3], D. Hsu[2], C. Sacdalan[3], J. Mellors[4], J. Coffin[5], M. Kearney[1]
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► PP 7. 14: Resistance Analysis of Long-Acting Lenacapavir in Highly Treatment-Experienced People with HIV after 52 Weeks of Treatment

N. Margot [1], L. Vanderveen [1], V. Naik [1], H. Dvory-Sobo [1], M. Rhee [1], A. Karimzadeh [2], C. Callebaut [1]
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SESSION 8: ANTIBODY & IMMUNE BASED THERAPIES

► PP 8.1: Optimization of the 5' cap and untranslated regions enhances the immunogenicity of an mRNA-based therapeutic vaccine in SIV-infected rhesus macaques on ART

W. Omange[1], B. Varco-Merth [1,2], A. Morenco [1,2], M. T. Chaunzwa [1,2], C. Nkoy [1,2], D. Duell [1,2], O. Fadeyi [1,2], M. Medina[1,2], S. Hoffmeister [1,2], W. Goodwin[1,2], R. Butler [1,2], Z. Etaki [1,2], H. Park [1,2], J. Smedley [2,] M. K. Axhelm [2], S.Hansen [1,2], J. Lifson [3], J. Gergen [4], S. Rauch [4], B. Petsch [4], L. J. Picker [1,2] and A. A. Okoye[1,2]
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► PP 8.2: Retargeting cytomegalovirus-specific CD8+ cytotoxic T lymphocytes to kill HIV/SIV-infected cells via peptide-MHC I-antibody fusion proteins

B. C. Rosen[1,2,3], M. J. Ricciardi[3], J. J. Louw[3], T. B. Voigt[3], F. D. Laurino[3], A. Yrizarry-Medina[3], C. Panayiotou[3], F. Zhao[4], J.Woolf[4], S. P. Fuchs[2], M. A. Martins[5], M. Farzan[5], D. R. Burton[4,6,7,8], D. Sok[4,6,7], E. G. Rakasz[9], R. C. Desrosiers[2], D. I. Watkins[3]
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► PP 8.3: Reduction in Markers of HIV Persistence with Gag/Pol/Il-12 DNA Therapeutic Vaccination

K. Chew[1], D. Glidden[2], R. Fromentin[3], J. Jacobs[4], G. Laird[5], N. Chomont[3], J. Mellors[4], D. Weiner [6], S. Deeks[2], R. Rutishauser[2]
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► PP 8.4: Bispecific antibodies promote natural killer cell-mediated elimination of the HIV reservoir

N. Board[1], F. Wu[1], M. Moskovljevic[1], M. Ravi[1], S. Sengupta[1], F. Simonetti[1], L. Montaner[2], S. Deeks[3], J. Siliciano[1], R. Siliciano[1]
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► PP 8.5: Fc-engineering of anti-HIV-1 antibodies and nanobodies to improve Fc mediated effector functions

A. Schriek[1], S. De Taeye[1], N. Kootstra[2], M. Van Gils[1]
[1] Department of Experimental Virology, Amsterdam UMC, Amsterdam, Netherlands, [2] Department of Experimental Immunology, Amsterdam UMC, Amsterdam, Netherlands

► PP 8.6: Ad26/MVA Mosaic vaccine induced antibody responses with limited cross-reactivity to CRF01_AE infections

T. Mdluli[1], B. Slike[1], S. Krebs[1], D.J. Stieh[3], M. Rolland[1], F. L. Tomaka[3], H. Schuitemaker[3], M. G. Pau[3], D. J. Colby[1,2,4], U.Tran[1,2], V. Dussupt[1,2], N. Phanupak[4], D. C. Hsu[1,2], S. Vasan[1,2], M. L. Robb[1,2]
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► PP 8.7: The sequestration and expansion of effector lymphocytes in lymphoid tissue using combination FTY720 and N-803 immunotherapy at ART initiation fails to limit SIV persistence

J. Harper[1], K. Nguyen[1], M. Freeman[2], J. Safrit[3], M. Lederman[4], M. Paiardini[5]
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PP 8.8: Antibody mediated killing of HIV-1 infected cells with glycoengineered broadly neutralizing antibodies

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► PP 8.9: Safety and activity of BCL-2 inhibitor Venetoclax in uninfected rhesus macaques

T. Wiche Salinas[1], J. Harper[1], K. Nguyen[1], J. Auger[1], L. Tompkins[2], A. Schauer[2], D. Kulpa[1], M.L. Cottrell[3], G. Silvestri[1], M. Paiardini[1]
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► PP 8.10: Evaluation of HIV-specific t cell response in beat2 clinical trial

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► PP 8.11: Distinct HIV reservoir characteristics among individuals treated during primary versus chronic HIV infection

C. Bittar Oliva[1], A. Kaczynska[1], T. Oliveira[1], J. Frater[2], S. Fidler[3], M. Nussenzweig[4], M. Caskey[1], C. Gaebler[1] and the RIO trial team
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► PP 8.12: In Vitro Assay for Escape Pathways from Broadly Neutralizing Antibodies

T. Murphy[1], R. Lynch[1]
[1] George Washington University, Washington DC, (USA)

► PP 8.13: Investigating the Impact of CD4 mimetic BNM-III-170 on SHIV-infected Rhesus Macaques

E. Viox[1], J. Richard[2,3], N. Clark[4], A. Grandea[4], I. Hammad[4], S. Janaka[4], K. Crosno[5], S. Capuano[5], A. Pagliuzza[2,3], F. Gaudette[2], C. Bourassa[2], C.Fritschi[6], A. B. Smith III[6], N. Chomont[2,3], J. Sodroski[7,8], A. Finzi[2,3], D. Evans[4,5], M. Paiardini[1,9]
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► PP 8.14: Early evolution of hiv-1 from transmitted founders during acute infection

V. Boltz[1], W. Shao[6], A. Capoferri[1], M. Rolland[2], N. Phanuphak[3], D. Hsu[2], C. Sacdalan[3], J. Mellors[4], J. Coffin[5], M. Kearney[1]
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ACKNOWLEDGEMENTS

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CONGRESS VENUE

MARRIOTT BISCAYNE BAY HOTEL
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WORKSHOP OPENING HOURS

- Tuesday, December 13: 9:00 AM - 7:30 PM
- Wednesday, December 14: 7:45 AM - 7:30 PM
- Thursday, December 15: 7:45 AM - 7:30 PM
- Friday, December 16: 7:45 AM - 2:00 PM

WORKSHOP OBJECTIVES

Provide an opportunity for scientist experts on HIV reservoirs to share ideas and debate in order to develop and increase knowledge to help for future researches:

- Provide a place for network and information-sharing between scientists specialized in the reservoir
- Present state-of-the-art basic science and clinical researches on HIV therapy with unpublished data and have a panel of experts to sum up the current advances in the field
- Accelerate research on reservoirs and latency to find a cure

BADGES & CERTIFICATE OF ATTENDANCE

- Certificate of attendance

  Certificate of attendance will be sent by email the week after the workshop.

- Badges

  The name badges 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.

LANGUAGE

All sessions will be held in English.

COFFEE BREAKS

Coffee will be served free of charge in the catering area of the workshop on level 3 to all registered delegates during the following times:

- Tuesday, December 13: 9:00 AM - 7:30 PM
- Wednesday, December 14: 7:45 AM - 7:30 PM
- Thursday, December 15: 7:45 AM - 7:30 PM
- Friday, December 16: 7:45 AM - 2:00 PM

BREAKFASTS, LUNCHES & DINNER

The meals included in your registration will be served as follows on the Front Bay Terrace:
Breakfasts:

- Wednesday, December 14: 06:50 - 7:50 AM
- Thursday, December 15: 06:50 - 7:50 AM
- Friday, December 16: 06:50 - 7:50 AM

Lunches:

- Wednesday, December 14: 12:30 - 1.50 PM
- Thursday, December 15: 12:30 - 1.50 PM

Lunch on Tuesday will be on your own, as it is not included in the workshop package.

Please consult the website or consult on site for food facilities in the vicinity.

WELCOME DINNER:

- Tuesday, December 13: 7:30 - 11:30 PM

At Briza on the Bay, 1717 N.
Bayshore Drive Suite #115,
Miami, FL 33132
One minute walk - 20 steps from the Marriott!
Meeting point: Marriott Biscayne bay hotel's lobby at 7:00 PM. Prior registration is required.

POSTER AREA & YOUNG INVESTIGATORS DEDICATED SESSION

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 at the following times:

Young investigators dedicated session for poster presentations (to be held in the main conference room immediately prior to the poster session):

- Wednesday, December 14: 4:00 - 5:00 PM
- Thursday, December 15: 4:00 - 5:00 PM

Other poster presentations with wine and cheese tasting:

- Wednesday, December 14: 5:00 - 7:00 PM
- Thursday, December 15: 5:00 - 7:00 PM

TRANSPORTATION

The airlines of SkyTeam, Offi cial Alliance Network offer attractive airfares for participants (subjectto conditions). To book your electronic ticket, visit: http://globalmeetings.airfranceklm.com/Search/promoDefault.aspx?vendor=AFR&promocode=38528AF

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