18TH ANNUAL

INTERNATIONAL MEETING of the Institute of Human Virology

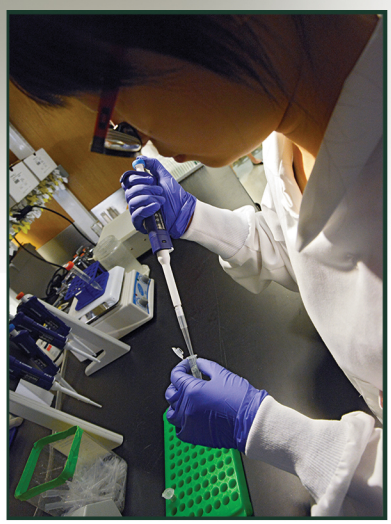
A complete program, including abstracts, can be accessed on Guidebook.

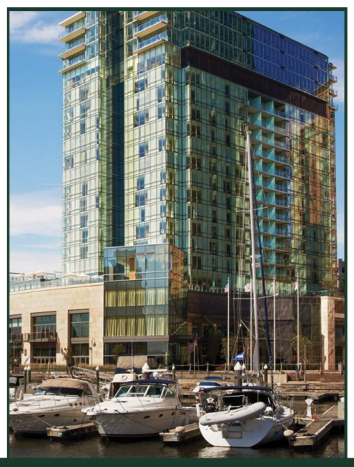
SEPTEMBER 19–22, 2016

at the Four Seasons Hotel
Baltimore, MD

University of Maryland
School of Medicine

Join world experts as they discuss HIV "cure" research, emerging viruses, structural biology, extracellular vesicle research, immunology and viral pathogenesis research, and advances in clinical virology, including a special lecture by Nobel Laureate Harald zur Hausen. In addition to invited presentations, scientific abstract submissions will be accepted for poster presentation.





Dr. Robert C. Gallo, Director, Institute of Human Virology

Please visit **WWW.IHV.ORG** for more information on the program, registration and abstract submission.

Monday, September 19, 2016

Session A: HIV "Cure" Research with Emphasis on Viral Suppression

8:20 AM – 12:20 PM
Grand Ballroom
Chairpersons and Discussants:
Carl Dieffenbach, PhD, National Institute of Allergy and Infectious Diseases
Anders Vahlne, MD, PhD, Karolinska Institutet

8:20 Robert Siliciano, MD, PhD, Johns Hopkins University
Defective proviruses rapidly accumulate during acute HIV-1 infection

8:40 Bruce Walker, MD, Ragon Institute of MGH, MIT, and Harvard
Impact of treatment in Fiebig Stage I on HIV-specific immune responses: Implications for cure strategies

9:00 Guido Poli, MD, Vita-Salute San Raffaele University
Towards Achieving a State of Reversible HIV-1 Latency in Primary Monocyte-Derived Macrophages (MDM) by M1 Polarization

9:20 Jonathan Karn, PhD, Case Western Reserve University
Distinct mechanisms of hormonal control of HIV latency in T-cells and microglial cells

9:40 Victor Garcia-Martinez, PhD, University of North Carolina
In vivo analysis of the myeloid HIV reservoir in the CNS

Coffee Break, 10:00 AM – 10:20 AM, Grand Prefunction

10:20 Ashley Haase, MD, University of Minnesota
Concentrating Antibodies at Mucosal Frontlines for Prevention

10:40 Timothy Schacker, MD, University of Minnesota
How Important Is the Lymphoid Tissue Reservoir?

11:00 Steven Wolinsky, MD, Northwestern University
Persistent viral replication maintains the tissue reservoir during drug therapy

11:20 Fabio Romerio, PhD, Institute of Human Virology
The HIV-1 antisense transcript AST promotes latency by recruiting PRC2 to the 5'LTR

11:40 Session Speakers, co-chaired by Carl Dieffenbach and Robert Gallo
Special Panel Discussion on HIV Cure Research

Lunch, 12:20 PM – 1:35 PM

Session B: Selected New Developments in Cancer Research

1:35 PM – 3:15 PM
Grand Ballroom
Chairpersons and Discussants:
Eduardo Sotomayor, MD, George Washington University School of Medicine & Health Sciences
Franco Buonaguro, MD, Istituto Nazionale Tumori "Fondazione Pascale"

1:35 Riccardo Dalla-Favera, MD, Columbia University
Molecular Genetics of HIV-associated B-cell Lymphomas

1:55 Gary Borisy, PhD, The Forsyth Institute
Visualizing the Complexity of Microbiomes at the Micron Scale

2:15 Robert Burk, MD, Albert Einstein College of Medicine
Sexual transmission of HPV16 from Neandertals to modern humans and the evolution of viral oncogenesis

2:35 Bernhard Fleckenstein, MD, UniversitÃ¤tsklinikum Erlangen
Functional Dissection of Primary Immunodeficiencies by Rhadinovirus-Mediated T-Cell Transformation

2:55 Jeffrey Schlom, PhD, National Cancer Institute
Emerging Concepts in Cancer Immunotherapy

Coffee Break, 3:15 PM – 3:35 PM, Grand Prefunction

Session C: Emerging Viruses and the Global Virus Network

3:35 PM – 5:50 PM
Grand Ballroom
Chairpersons and Discussants:
Kathleen Neuzil, MD, MPH, Institute of Global Health, University of Maryland School of Medicine
Jose Esparza, MD, PhD, Adjunct Professor, Institute of Human Virology

3:35 Jerome Kim, MD, International Vaccine Institute
The Middle East Respiratory Syndrome (MERS) experience in Korea

3:55 Scott Weaver, PhD, Institute for Human Infections and Immunity, University of Texas Medical Branch
Zika Virus: History, Evolution, Transmission, Emergence Mechanisms, and Activities of the GVN Task Force

4:15 Alan Schmaljohn, PhD, University of Maryland School of Medicine
Special Lecture: Beyond Neutralization is Metaneutralization: Precedents and Complexities with Emerging Viruses

4:40 Roger Glass, MD, PhD, Fogarty International Center, National Institutes of Health
Special Lecture: Rotavirus and Rotavirus Vaccines: Current status and future challenges

5:05 Konstantin Chumakov, PhD, U.S. Food and Drug Administration
A new generation of poliovirus vaccines and antiviral tools

5:25 A.D.M.E. (Ab) Osterhaus, PhD, DVM, University of Veterinary Medicine Hannover, Germany
Special Lecture: Emerging infections in animals and humans

5:50 Diane Griffin, MD, PhD, Johns Hopkins Bloomberg School of Public Health
Special Lecture: Measles, a re-emerging disease

Opening Reception, 6:30 PM - 8:15 PM, Grand Prefunction

Tuesday, September 20, 2016

Session D: Structural Biology

8:20 AM - 12:40 PM
Grand Ballroom
Chairpersons and Discussants:
Eric Sundberg, PhD, Institute of Human Virology
Leonid Margolis, PhD, National Institute of Child Health and Human Development

8:20 Stefan Sarafianos, PhD, University of Missouri School of Medicine
Structural Basis of Inhibition and Resistance Mechanism to EFdA, a highly potent NRTI

8:40 Andrew Ward, PhD, The Scripps Research Institute
The Dynamic HIV-1 Envelope Glycoprotein Trimer

9:00 Sriram Subramaniam, PhD, National Cancer Institute
Cryo-EM of dynamic molecular assemblies

9:20 Peijun Zhang, PhD, The Scripps Research Institute
Structural Basis of HIV-1 Capsid Assembly, Maturation and Host Cell Interactions

9:40 Marzena Pazgier, PhD, Institute of Human Virology
Structural targeting of the A32-region epitopes for antibody-dependent cell-mediated cytotoxicity

Coffee Break, 10:00 AM - 10:20 AM, Grand Prefunction

10:20 Jason McLellan, PhD, Dartmouth College
Structure and Stabilization of Coronavirus Spike Proteins in the Prefusion Conformation

10:40 Bing Chen, PhD, Harvard University
Structural Basis for Membrane Anchoring of HIV-1 Envelope Spike

11:00 Joseph Sodroski, MD, Harvard University
Understanding and Exploiting the Conformational States of the HIV-1 Envelope Glycoprotein Trimer

11:20 Gregory Melikian, PhD, Emory University School of Medicine
Real-time imaging of single HIV-1 core uncoating

11:40 Carol Weiss, MD, PhD, U.S. Food and Drug Administration
Coordinated gp41 and gp120 mutations conferring an open conformation of Env and their consequences on Env function

12:00 Pamela Bjorkman, PhD, California Institute of Technology
Structure of a natively-glycosylated HIV-1 Env reveals a new mode for VH1-2 antibody recognition of the CD4 binding site relevant to vaccine

Lunch, 12:20 PM - 1:35 PM

Session E: Extracellular Vesicle Research

1:35 PM - 3:15 PM
Grand Ballroom
Chairpersons and Discussants:
Thomas Lehner, MD, King's College London
Isaac Witz, PhD, Tel Aviv University

1:35 Leonid Margolis, PhD, National Institute of Child Health and Development
Extracellular vesicles released by HIV-1 infected cells carry viral proteins and facilitate HIV infection of human lymphoid tissue

1:55 Fatah Kashanchi, PhD, George Mason University
Exosomes from retrovirus infected cells carry distinct viral noncoding RNAs and proteins that control the fate of the recipient cell

2:15 Dirk Dittmer, PhD, University of North Carolina School of Medicine
Viral exosomes exert paracrine effects on endothelial cells leading to enhanced migration

2:35 Howard Fox, MD, PhD, University of Nebraska Medical Center
Extracellular vesicle microRNA leads to neurotoxicity in SIV infection

2:55 Esther N.M. Nolte-t Hoen, PhD, Utrecht University
Naked virions, extracellular vesicles, and vesicle-enclosed virions released early after picornavirus infection - who, when, how, and why?

Coffee Break, 3:15 PM - 3:35 PM, Grand Prefunction

Session F: Immunology and Viral Pathogenesis Research

3:35 PM - 5:45 PM
Grand Ballroom
Chairpersons and Discussants:
Guido Poli, MD, Vita-Salute San Raffaele University
Arnaldo Caruso, MD, University of Brescia Medical School

3:35 Louis Picker, MD, Oregon Health & Science University
Special Lecture: Programming CD8+ T Cell Immunity with Cytomegalovirus Vectors

4:00 Warner Greene, MD, PhD, Gladstone Institute of Virology and Immunology
Special Lecture: On Death and Dying with HIV: Pyroptosis Drives CD4 T Cell Depletion

4:25 Paolo Lusso, MD, PhD, National Institute of Allergy and Infectious Diseases
Structure-Function Elucidation of the Native HIV-1 Envelope Trimer As a Basis for Rational Vaccine Design

4:45 Jeffrey Lifson, MD, National Cancer Institute
Insights Into AIDS Virus Pathogenesis from Studies in Nonhuman Primate Models

5:05 Timothy Fouts, PhD, Profectus Biosciences
Vesiculovirus vectored vaccines can provide single dose protection against filoviruses, arenaviruses, and alphaviruses

5:25 John Mellors, MD, University of Pittsburgh
Clonally-Amplified Proviruses as Reservoirs of HIV

Poster Session, 6:30 PM - 8:15 PM, Grand Prefunction

Wednesday, September 21, 2016

Session G: Progress in Vaccinology and HIV Prevention

8:20 AM -12:35 AM
Grand Ballroom
Chairpersons and Discussants:
Robert C. Gallo, MD, Director, Institute of Human Virology
Georgia Tomaras, PhD, Duke Human Vaccine Institute

8:20 Donald Forthal, MD, University of California, Irvine
Non-neutralizing antibody activities: the good, bad and indifferent

8:40 Margaret Ackerman, PhD, Dartmouth College
Fine epitope signature of HIV-1 antibody neutralization breadth at the CD4 binding site

9:00 Gabriel Victora, PhD, Whitehead Institute for Biomedical Research
Clonal and cellular dynamics in antibody evolution

9:20 Thomas Hope, PhD, Northwestern University Feinberg School of Medicine
Defining the earliest targets of SIV susceptibility after mucosal challenge in the Rhesus Macaque model

9:40 Anthony DeVico, PhD, Institute of Human Virology
HIV Vaccines Based on Transition State Envelope Structures

10:00 Christopher Parks, PhD, International AIDS Vaccine Initiative
Mucosal vaccination with a replication-competent VSV-HIV chimera delivering Env trimers protects rhesus macaques from rectal SHIV infection

10:20 Garnett Kelsoe, DSc, Duke University School of Medicine
High Resolution of Humoral Responses to HIV-1: determinism or chance?

Coffee Break, 10:40 AM - 10:55 AM, Grand Prefunction

10:55 Michel Nussenzweig, MD, PhD, The Rockefeller University
Special Lecture: HIV-1 Prevention: Progress Towards Passive or Active Vaccination

11:20 Jeffrey Ravetch, MD, PhD, The Rockefeller University
Special Lecture: Engineering anti-HIV antibodies for optimal control of HIV infection

11:45 Cynthia Derdeyn, PhD, Emory University School of Medicine
Events in Early HIV-1 Infection That Prime the Development of Heterologous Neutralization Breadth

12:05 Frances Eun-Hyung Lee, MD, Emory University School of Medicine
Identification of Human Long-lived Plasma Cells: Implications for HIV Vaccines

12:25 Thomas Lehner, MD, King's College London
The effect of stress agents in vitro and human vaccination in vivo on stem cell memory CD4+ CD45- T cells

Lunch, 12:45 PM - 1:50 PM

Session H: Lifetime Achievement Award Mini-Symposium

1:50 PM - 5:40 PM
Grand Ballroom
Chairpersons and Discussants:
Robert C. Gallo, MD, Director, Institute of Human Virology
William Blattner, MD, IHV Co-founder

1:50 Robert C. Gallo, MD, Director, Institute of Human Virology
Introduction to Lifetime Achievement Awards

Carlo Croce, MD, The Ohio State University College of Medicine
Video remarks in honor of Peter Vogt

1:55 Robin Weiss, MD, PhD, University College London
Speaking in honor of Peter Vogt: Pseudoviruses: Sheep in Wolves Clothing

2:15 Joseph Pagano, PhD, University of North Carolina
Speaking in honor of Peter Vogt: The Epstein-Barr Virus, a 50-year Odyssey

2:35 Harald zur Hausen, MD, Nobel Laureate, German Cancer Research Center
Special Lecture in Honor of Peter Vogt: Novel infectious agents in dairy cattle and their role in human chronic diseases

3:15 Peter Vogt, PhD, The Scripps Research Institute, The 2016 IHV Lifetime Achievement Award for Scientific Contributions
Reinhard Kurth Memorial Lecture: The Non-coding Transcriptome: Regulation by MYC and Cancer-specific Transcripts

Coffee Break, 4:00 PM – 4:20 PM, Grand Prefunction

4:20 Mario Stevenson, PhD, University of Miami Miller School of Medicine
Speaking in honor of Ray Schinazi: Assessing the contribution of myeloid cells to HIV-1 persistence in the face of ART

4:40 Samuel Broder, MD, Intrexon
Speaking in honor of Ray Schinazi: Thirty Years of Anti-Retroviral Therapy for Patients with AIDS

5:00 Harvey Alter, MD, National Institutes of Health
Special Lecture in honor of Ray Schinazi: The HCV Story: From Origins to Cure

6:30 PM Gala Reception, Grand Prefunction

7:15 PM Lifetime Achievement Awards Dinner, Cobalt

Thursday, September 22, 2016

Session I: Advances in Clinical Virology

8:20 AM – 12:20 PM
Grand Ballroom
Chairpersons and Discussants:
Shyamasundaran Kottilil, MD, PhD, Institute of Human Virology
John Bartlett, MD, Johns Hopkins University School of Medicine

8:20 John Bartlett, MD, Johns Hopkins University School of Medicine
Public Health Approach to HIV Stagnation

8:40 Mark Wainberg, MD, McGill University
The Absence of Drug Resistance against Dolutegravir in First-Line Therapy is Attributable to Reduced Viral Replicative Fitness

9:00 Barry Peters, MD, King's College London
Metabolic and cardiovascular co-morbidities in people living with HIV

9:20 Mark Sulkowski, MD, Johns Hopkins University School of Medicine
Advances in the treatment of chronic HCV infection with direct acting antivirals

9:40 Howard Gendelman, MD, University of Nebraska
Special Lecture: Transforming anti-HIV drugs

Coffee Break, 10:10 AM – 10:30 AM, Grand Prefunction

Grand Ballroom
Chairpersons and Discussants:
Ed Tramont, MD, National Institute of Allergy and Infectious Diseases
Robert Redfield, MD, Institute of Human Virology

10:30 Shyamasundaran Kottilil, MD, PhD, Institute of Human Virology
Challenges in eradicating chronic HBV infection

10:50 Luigi Buonaguro, MD, National Cancer Institute "Fondazione Pascale"
Discovery to first-in-man of a multi-peptide-based hepatocellular carcinoma vaccine adjuvanted with CV8102 (RNAdjuvant) - HEPAVAC

11:10 Peter Stock, MD, University of California, San Francisco
Transplantation in the HIV Positive Recipient: The Unexpected Findings

11:30 JoAnn Suzich, PhD, MedImmune
Targeting the PD-1/PD-L1 pathway to achieve a functional cure for chronic infection

11:50 Robert Gallo, MD, Institute of Human Virology
Closing Remarks

Notes:

Notes:

Special Acknowledgements

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Improving the human condition.

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