



Speakers' Biographies

5th Annual Short Course in Virology of the GVN



Clement A. Adebamowo, BM, ChB, ScD, FWACS, FACS. As a member of the Population Sciences Program of the Cancer Center and a cancer epidemiologist, I conduct research on the epidemiology of cancer. At this time, I am the PI of the NIH funded African Collaborative Center for Microbiome and Genomics Research (ACCME) which is one of the NIH/Wellcome Trust funded Human Heredity and Health in Africa (H3Africa) initiative on genomics research and education in Africa. ACCME's current project is enrolling 10,000 women in Nigeria and Zambia and following them up every 6 months for research focused on integrative epidemiology of persistent high risk HPV infection, host germline and somatic genomics and epigenomics, and vaginal microenvironment (cytokines and microbiome) and risk of cervical cancer. As part of this project, I established a comprehensive genomics laboratory in Nigeria including facilities for epigenetics and next generation sequencing using Illumina NextSeq500. The genomics lab is linked to an NIH funded biorepository at IHVN. I also direct the Fogarty funded West African Bioethics Training program which has provided medium term training leading to Certificates in Research Ethics for 842 biomedical researchers, Masters' degree in Bioethics to 34 individuals and Online WAB-CITI Training program to 6115 participants in West Africa. In Baltimore, I am working with colleagues at the University of Maryland Greenebaum Cancer Center and University of Maryland College Park to develop a research program on cancer disparities among Africans in Africa, recent African immigrants to the United States and African Americans in order to better understand the role of genetics, environment cultural and socio-economic factors in cancer prevention, treatment seeking behavior and outcomes.



Dr. Man Charurat is a Professor of Medicine and Director of the Division of Epidemiology and Prevention at the Institute of Human Virology. He is an international leader in the field of epidemiological studies of populations at high risk of HIV and AIDS. Dr. Charurat received his Masters of Health Science in Infectious Disease Epidemiology and PhD in International Health from the Johns Hopkins Bloomberg School of Public Health. In 1998, he joined the Institute of Human Virology (IHV), University of Maryland School of Medicine.



Kenneth Bridbord, M.D., M.P.H. Following receipt of an M.D. degree from the University of Chicago in 1969, Dr. Bridbord completed an internship in pediatrics at Bellevue Hospital New York University followed by an MPH from Harvard School of Public Health in 1971. Dr. Bridbord has been with the U.S. Government for over 47 years, the past 35 years with the Fogarty International Center (FIC), at the NIH. Dr. Bridbord was Director of the Center's Extramural Programs for nearly 20 years. In this capacity, he focused on the support of research training for scientists from developing countries to address global health threats, including HIV/AIDS. Prior to NIH, Dr. Bridbord worked 8 years for the National Institute for Occupational Safety and Health and 4 years at the Environmental Protection Agency (EPA). He is well

known for his efforts at EPA to identify health risks from lead in gasoline and for his role in drafting the initial Federal health-based regulation to remove lead from gasoline. This, along with subsequent actions, has dramatically reduced blood-lead levels in the U.S. and many other countries. He was honored for this work with a Silver Medal from EPA in 1975. In 2000, he received the American Association for the Advancement of Science Award for International Scientific Cooperation for his tireless efforts to establish and support programs for combating HIV/AIDS in developing countries. In 2005, Dr. Bridbord was the recipient of the Gano Dunn Award for professional achievement in engineering, industry or finance awarded to a graduate of The Albert Nerken School of Engineering at The Cooper Union. In 2007, Dr. Bridbord received the NIH World AIDS Day Award for his efforts to develop innovative programs to build a cadre of international research scientists and clinicians trained to join the global fight against the AIDS pandemic. In 2009, he received a Distinguished Service Award from the University of Chicago - Pritzker School of Medicine and was an initial inductee to the Cooper Union Alumni Hall of Fame. In 2012, Dr. Bridbord was honored by a Proclamation from the U.S. Senate acknowledging 42 years of service to the U.S. Government. From October 2012 to July 2015, Dr. Bridbord served as the Acting Deputy Director for the FIC, NIH. Dr. Bridbord is currently serving as the Acting Director, Division of International Relations for the FIC, NIH.



Dr. Konstantin Chumakov is an Associate Director for Research at the Office of Vaccines Research and Review at the US Food and Drugs Administration, and an Adjunct Professor at George Washington University and the University of Maryland. He holds a PhD (1979) in molecular biology and Doctor of Sciences degree (1987) from Moscow State University. In 1973-1987 he was a Research Scientist at the Laboratory of Molecular Biology and Bioorganic Chemistry of Moscow State University. From 1987 to 1989, he headed the Laboratory of Bacterial Genetics at the Institute of Microbiology of the Soviet Academy of Sciences in Moscow. In 1989 he moved to the FDA Center for Biologics Evaluation and Research (CBER) in Bethesda, Maryland, and since 1997 leads a research laboratory in the Division of Viral Products. His scientific interests are in creation

of molecular methods for evaluation and quality control of vaccines and other biological products. The primary focus of his studies is related to poliovirus and polio vaccines.



Dr. Niel Constantine, a professor in the University of Maryland School of Medicine, possesses 40 years of experience in the diagnostic arena, has frequently acted as an international consultant for laboratory strengthening activities in many countries, and has a productive track record with extramural funding and publications. During 1993, Dr. Constantine was recruited to Geneva to work with the Global AIDS Programme in the Diagnostics Unit of the World Health Organization for establishing research protocols in a number of countries, and addressing issues in global diagnostics for HIV. In 1998, Dr. Constantine became part of the Institute of Human Virology (IHV, Dr. Robert Gallo, Director) where he established the Laboratory of Viral Diagnostics. This laboratory provides serologic and molecular testing capabilities, performs research activities for the development of new test technologies, provides training for international students, and supports a variety of ancillary activities including sample archiving, quality assurance support, and FDA clinical trials. Efforts are directed toward the development of a variety of novel technologies aimed at increasing sensitivity, simplifying procedures, and developing test technologies for resource-limited facilities in developing countries. Major activities are supported by FHI360, PSCM, and PFSCM (USAID) to evaluate rapid test kits for HIV, hepatitis, malaria, TB, pregnancy, and others from international locations; other support is from NIH for HIV research.



José Esparza MD, Ph.D. is an Adjunct Professor of Medicine, Institute of Human Virology, University of Maryland, School of Medicine in Baltimore, and a Robert Koch Fellow at the Robert Koch Institute in Berlin. He earned his MD in 1968 from Zulia University in Maracaibo, Venezuela, and his PhD (virology and cell biology) in 1974 from Baylor College of Medicine, in Houston, Texas. From 1974 to 1986 he worked at the Venezuelan Institute of Scientific Research (Instituto Venezolano de Investigaciones Científicas, IVIC) in Caracas, Venezuela, where he was a Full Professor of Virology, head of the Laboratory of Biology of Viruses, and Chairman of the Center of Microbiology and Cell Biology. During that time he focused on the study of rotaviruses, from epidemiology to ultrastructure and molecular biology. In 1986 he joined the Virus Diseases Unit at the World Health Organization (WHO) in Geneva, Switzerland, working on vector borne epidemic diseases (especially dengue and yellow fever) and hemorrhagic viruses. When the WHO Global Program on AIDS (GPA) was established in 1987, he headed its Biomedical Research Unit. With time he focused his interests in vaccine development, heading the GPA Vaccine Development Unit and, at a latter point, the Joint WHO-UNAIDS HIV Vaccine Initiative. During those years he promoted the international development of preventive HIV vaccines, including the establishment of the Network for HIV Isolation and Characterization and the WHO Sites for HIV Vaccine Evaluation. In 2004, and until 2014, he joined the Bill & Melinda Gates Foundation in Seattle, where he served as the Senior Advisor on HIV Vaccines and later as Senior Advisor on Vaccines. During this time he established the Gates Foundation's Collaboration for AIDS Vaccine Discovery (CAVD) and launched the Global HIV Vaccine Enterprise, at one point serving as the President of its Board. José Esparza retired in 2014, although he continues advising different companies and organizations in the areas of HIV/AIDS, vaccine development and emerging viral infections. He also has an academic interest on the history of vaccines and vaccination, with recent publications on the origin and evolution of the smallpox vaccine. During 2016 he was the President of the Global Virus Network (GVN), where he currently serves as Senior Advisor. He has received numerous awards, including the 2013 Lifetime Achievement Award (Public Service) of the Institute of Human Virology, and the 2013 Distinguished Alumnus Award of the Graduate School of Biomedical Sciences of Baylor College of Medicine. He has published over 190 scientific papers and book chapters. José Esparza is a member of the Venezuelan Academy of Medicine and of the Latin American Academy of Science



Prof. Robert Gallo is Founder and Director of the Institute of Human Virology (IHV) at the University of Maryland. Prior to this role, he spent 30 years at the National Institutes of Health's National Cancer Institute, where he was head of its Laboratory of Tumor Cell Biology. Dr. Gallo is renowned for his research on HIV, most notably his co-discovery in 1984 that HIV is the cause of AIDS. His research has been instrumental to the development of HIV blood tests and HIV therapies. In 1996, his discovery that a natural compound known as chemokines can block HIV and halt the progression of AIDS was hailed by Science magazine as one of that year's most important scientific breakthroughs. Dr. Gallo's current work at the IHV combines the disciplines of research, patient care, and prevention programs in a concerted effort to speed the pace of medical breakthroughs. Dr. Gallo has authored more than 1,200 scientific publications, as well as the book "Virus Hunting: AIDS, Cancer & the Human Retrovirus: A Story of Scientific Discovery." Dr. Gallo has been awarded 35 honorary doctorates and was twice a recipient of the Albert Lasker Clinical Medical Research Award (1982 and 1986). He is a member of the National Academy of Sciences and the Institute of Medicine.



Robert F. Garry, Ph.D. is Professor of Microbiology and Immunology and Associate Dean for the Graduate Program in Biomedical Sciences at Tulane Medical School. He is currently managing a consortium of scientists who are developing countermeasures, against Lassa virus, Ebola and Marburg viruses, and other high consequence pathogens (vhfc.org). Our team has been investigating the natural history of Lassa fever and Ebola, performing genomic analyses of Lassa and Ebola viruses, and developing human monoclonal antibody therapies. We also continue structural and molecular investigations to deepen understanding of pathogenesis of viral hemorrhagic fevers while providing training for West African scientists while further developing research and clinical trial infrastructure in Sierra Leone and Nigeria. The VHFC team produced commercial LASV point-of-care and confirmatory diagnostics based on recombinant proteins that have high sensitivity for detecting infection with LASV. These advances were leveraged to develop immunoassays with high sensitivity and specificity for Ebola virus and other filoviruses. A combination of human monoclonal antibodies was able to cure macaques challenged with two diverse stains of Lassa virus even when treatment was delayed for more than a week. The VHFC team is also developing novel Lassa and Ebola vaccines.



Dr. Garzino Demo received his PhD at the University of Torino Italy in 1994. From 1991 until 1996 Dr Garzino Demo worked with Dr. Robert C Gallo at the Laboratory of Tumor Cell Biology at NCI NIH, pursuing studies on cofactors in HIV infection and on HIV gene expression. Dr Garzino Demo joined the Institute of Human Virology in January 1996 to further studies on HIV suppressive factors produced by the immune system He was a member of the team that in 1995 identified RANTES, MIP1 α , and MIP1 β as suppressive HIV suppressive factors. Successively he participated to the characterization the broad HIV-suppressive activity of another chemokine, and he was the key investigator in a large study of antigen-induced chemokine release the MACS cohort. He is also the author of several other scientific publications and reviews on chemokines, their role in HIV infection and their regulation. The main focus of his research is on the role of host factors in controlling HIV infection. He and his laboratory have described the HIV inhibitory activity of beta-defensins, demonstrating that hBD2 inhibits HIV through a novel antiviral mechanism mediated by a chemokine receptor, CCR6, that induces increased expression of the antiviral protein APOBEC3G These findings are of importance in mucosal immunity and HIV infection. His studies are currently focused on targeting T cell activation to boost antiretroviral therapy.



Diane E. Griffin MD, PhD is University Distinguished Service Professor of Molecular Microbiology and Immunology at Johns Hopkins Bloomberg School of Public Health and Vice President of the US National Academy of Sciences. She earned her MD and PhD from Stanford University School of Medicine. Her research interests are in the area of pathogenesis of viral diseases with a focus on measles and alphavirus encephalitis. These studies address issues related to virulence and the role of immune responses in protection from infection and in clearance of infection and has included evaluation of licensed and experimental vaccines for measles. She is past president of the American Society for Virology and the American Society for Microbiology. Currently, she is US Chair of the US-Japan Cooperative Medical Sciences Program and Director of the Johns Hopkins GVN Center of Excellence.



Dr. Shyam Kottlil is the Professor of Medicine and Associate Chief of Clinical Care and Research at the Institute of Human Virology (University of Maryland). He trained at Brown University and at the National Institutes of Health prior to his appointment at University of Maryland. He is a national leader in the management of hepatitis C infection and has conducted several clinical studies in the inner city community clinics in District of Columbia and Baltimore. He has published over 150 peer reviewed publications and serves as a member of the National HCV Treatment Guidelines Committee member.



Kirsten Kulcsar, PhD is a Postdoctoral Fellow in the Department of Molecular Microbiology and Immunology at the University of Maryland School of Medicine. Dr. Kulcsar received her PhD from Johns Hopkins University School of Medicine. Her research interests are studying virus pathogenesis with a focus on Middle East respiratory syndrome coronavirus (MERS-CoV) and severe acute respiratory syndrome coronavirus (SARS-CoV). Her current studies are investigating immune mechanisms of disease during MERS-CoV infection in healthy hosts as well as those with comorbidities such as diabetes. Dr. Kulcsar received the Ruth L. Kirschstein National Research Service Award and is currently an Emerging Leader

in Biosecurity Initiative fellow at the Johns Hopkins Center for Health Security.



Dr. Mary Marovich joined the Division of AIDS as the new director of the Vaccine Research Program in December 2012, where she leads the development and coordination of clinical and preclinical research on HIV vaccines. She comes to NIH from the U.S. Military HIV Research Program (MHRP), where she served as chief of vaccine research and development since 2005. Additionally, Mary worked as the clinic director for MHRP's Rockville Vaccine Assessment Center, where she led multiple early-stage HIV and non-HIV vaccine clinical trials. She earned bachelor's degrees in biochemistry and chemistry at Illinois State University and a medical degree at Loyola University of Chicago-Maywood. In 1993, she completed a

residency in internal medicine and clinical infectious diseases training at the University of Colorado and earned a diploma in tropical medicine and hygiene from the Royal College of Physicians and Surgeons, London School of Tropical Medicine and Hygiene. Mary was in the NIAID intramural research program studying immunology for her fellowship training from 1995-1999. She then went to the MHRP to launch a translational program in HIV vaccine development from 1999-2012. An adjunct professor of medicine with the Uniformed Services University's department of medicine, Dr. Marovich has won several honors for academic and teaching excellence.



Kathleen Maletic Neuzil, MD, MPH is a Professor of Medicine and Pediatrics at the University of Maryland School of Medicine and director of the Center for Vaccine Development and Global Health. She is an internationally recognized research scientist and advocate in the field of vaccinology. Dr. Neuzil graduated from the University of Maryland College Park and received her medical degree from Johns Hopkins University. She spent the next 11 years at Vanderbilt University School of Medicine - completing an Internal Medicine residency, serving as the Hugh Morgan Chief Resident, completing fellowship training in Infectious Diseases and receiving her Masters of Public Health degree. Dr. Neuzil

has established an international reputation for her work on vaccine-preventable diseases, and notably influenza. Her work was pivotal in highlighting the burden of influenza in pregnant women and young children, and understanding how to optimize influenza vaccine performance in all populations. These data have influenced many changes in the influenza vaccine policy over the last two decades both domestically and internationally. Dr. Neuzil's research capabilities are complimented by 20 years of involvement in domestic and international policy, including membership on the Centers for Disease Control's Advisory Committee on Immunization Practices. She has served as a technical advisor to the World Health Organization on diarrheal diseases, maternal immunization and vaccine safety.



Dr. Kenneth Olson is a professor of Virology in the Department of Microbiology, Immunology and Pathology at Colorado State University (Fort Collins, CO USA). He is past director (2004-2014) of the Arthropod-borne and Infectious Diseases Laboratory (AIDL) research and training unit at CSU. His research interests include arbovirology and arthropod vector biology. His group has been at the forefront in developing *Alphavirus* based gene expression systems and genetically modified mosquitoes for examining arbovirus-vector interactions. He has extensively studied the vector's antiviral RNAi pathway responses after infection with dengue viruses. His lab routinely works with *Aedes* and *Culex* species of mosquitoes

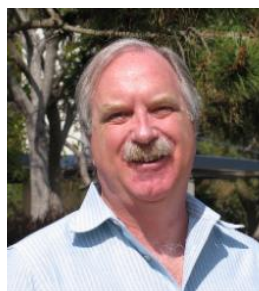
infected with various arboviruses in BSL3 containment environments with the goal of identifying critical virus-vector interactions that could be exploited to control arbovirus transmission.



Professor Osterhaus (DVM PhD) has been Head of the Department of Viroscience at Erasmus MC Rotterdam until July 1st 2014, is currently Professor of Wildlife Virology and Virus Discovery at Utrecht University, and Director of the Center of Infection Medicine and Zoonosis Research and Guest-Professor at the University of Veterinary Medicine Hannover. He has a long track record as a scientific researcher and Principal Investigator of numerous major scientific projects. At Erasmus MC, Professor Osterhaus has run a diagnostic virology lab with more than 40 staff and a research Virology lab with over 150 personnel. His research programme follows a novel integrated "viroscience" concept, bringing together world-leading scientists in molecular virology, immunology, epidemiology,

pathogenesis, and intervention studies on human and animal virus infections. Among the major accomplishments are the discovery of more than 50 viruses of humans and animals (e.g. in humans: influenza A H5N1 virus, human metapneumovirus, human coronaviruses, influenza viruses), elucidation of the pathogenesis of major human and animal virus infections, and development of novel intervention strategies. This has enabled health authorities like the WHO to effectively combat disease outbreaks like SARS and avian influenza. The spin-off, Viroclinics Biosciences BV, is another societally relevant success, allowing effective testing and refining of diagnostic tools and other intervention strategies. The international recognition of Professor Osterhaus is further highlighted by his chairmanships of many international organizations, awards, prizes, guest lecture invitations, (co-)organiserships of international meetings and editorships of scientific journals. Professor Osterhaus has acted as PhD mentor for more than 75 students and holds several key patents. He is also the author of more than 1100 papers in peer-reviewed journals, together cited more than 50,000 times, and his H index is 97. Most of all, Professor Osterhaus firmly believes that scientists have a role to play in translating their knowledge for the benefit and protection of society.

Manizhe E. Payton, MPH is the Director, Office of Clinical Site Oversight (OCSO), Division of AIDS (DAIDS), at the National Institute of Allergy and Infectious Diseases (NIAID). Prior to her current position, she was Director, Trial Management and Operations at the Immune Tolerance Network (ITN), a Division of Allergy, Immunology, and Transplantation funded international consortium dedicated to the development of immune tolerance therapies. She worked in the pharmaceutical/biotechnology industry for over 15 years. First, as a clinical research monitor at Otsuka Pharmaceuticals in the field of cardiovascular research, then as a Project Manager and an Associate Director of Clinical Operations at MedImmune leading a Clinical Development Program of a monoclonal antibody for treatment of psoriatic arthritis. She obtained a Bachelor of Science degree from University of Maryland, College Park, and a Master of Public Health degree at Johns Hopkins University. She is currently a Doctor of Public Health candidate in public health leadership at the University of North Carolina, Chapel Hill expected in May 2019.



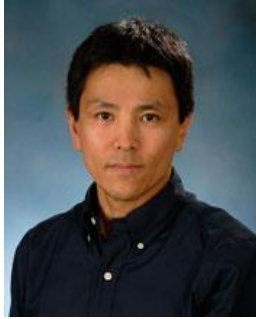
Richard H. Scheuermann, Ph.D., is the Director of Informatics at the J. Craig Venter Institute (JCVI) and a Professor of Pathology at U.C. San Diego. He received a B.S. in Life Sciences from the Massachusetts Institute of Technology, and a Ph.D. in Molecular Biology from the University of California, Berkeley. After completing his doctoral research, he accepted an independent research position at the Basel Institute for Immunology in Switzerland. In 1992 he joined the faculty in the Department of Pathology at the University of Texas Southwestern Medical Center in Dallas where he rose to the rank of Professor with tenure. In 2001 he made a career shift into the discipline of bioinformatics, initiated with a sabbatical year at

the San Diego Supercomputer Center. In 2012 Dr. Scheuermann moved to San Diego to become the Director of Informatics at JCVI. Dr. Scheuermann has applied his deep knowledge in molecular immunology and infectious disease toward the development of novel computational data mining methods and knowledge representation approaches, including the development of biomedical ontologies and their use in data mining, novel methods for the analysis of gene expression, protein network and flow cytometry data, and novel comparative genomics methods. These computational methods have been made available through several public database and analysis resources, including the Influenza Research Database (IRD; www.fludb.org), the Virus Pathogen Resource (ViPR; www.viprbrc.org) and the Immunology Database and Analysis Portal (ImmPort; <https://import.niaid.nih.gov/>) through support from the U.S. National Institutes of Health.



Stefan G. Sarafianos, PhD, is *Nahmias-Schinazi Distinguished Professor* in Department of Pediatrics and Associate Director of Laboratory of Biochemical Pharmacology in the School of Medicine at Emory University. He earned his PhD in Biochemistry from Georgetown University in 1993, and subsequent postdoctoral fellowships in drug resistance of HIV-1 reverse transcriptase with Dr. Mukund Modak at University Medicine & Dentistry of New Jersey and Dr. Edward Arnold at the Center for Advanced Biotechnology & Medicine at Rutgers University. Prior to coming to Emory University, Dr. Sarafianos was Professor in the Departments of Molecular Microbiology & Immunology and the Department of Biochemistry at the

University of Missouri. He also serves as *Co-Director* of the HIVE U54 Center at Scripps Research Institute. His research focus is towards unraveling the molecular details of how biomedically-relevant enzymes function, how they are inhibited, how they develop drug resistance and towards developing drugs that will treat human disease by novel mechanisms of action. Ongoing efforts focus on various steps of HIV, HBV, and Hepatitis C virus (HCV) life cycles, including cell entry, uncoating, reverse transcription, nuclear entry, assembly, and host interactions towards developing novel therapeutics.



Dr. Tagaya is Head, T-cell Biology Lab, Division of Basic Sciences and Vaccine Research, Institute of Human Virology, at the University of Maryland School Of Medicine. Dr. Tagaya received his M.D. and Ph.D. degrees from Kyoto University Medical School, and completed postdoctoral studies at the National Cancer Institute. While at the NCI, Dr. Tagaya made seminal discoveries in the field of cytokine biology. He has been recognized as one of the international leaders in this field. He has discovered a unique way IL-15 functions in vivo (trans-presentation paradigm) and generated animal models to study the biology of cytokines and, through his work, has demonstrated a direct correlation between cytokines and some illnesses such as leukemia and autoimmune diseases. Currently Dr. Tagaya's group at the IHV studies the molecular mechanism of CD8 T cell differentiation in special connection to a transcription factor IRF-8. Dr. Tagaya's group is also developing novel anti-cytokine drugs that may be used to treat autoimmune and inflammatory diseases using the animal models his group has generated in the past. His group also studies the leukemic mechanism associated with HTLV-1. His bibliography contains more than 60 publications in reputed journals in the field of cytokine biology, molecular and cellular immunology.

4th GVN Short Course participant selected as the Next Emerging Leader:

Yuki Furuse, MD, PhD, is an Assistant Professor in Institute for Frontier Life and Medical Sciences at Kyoto University, Japan. He earned his PhD from Tohoku University, Japan for his dissertation research on the molecular epidemiology of respiratory viruses. He worked for Japanese Red Cross Narita Hospital as a resident physician and received postdoctoral training for molecular biology of influenza virus at Duke University, the USA. He also works in the field of global health as a member of Japan Disaster Relief Medical Team and a consultant of World Health Organization for outbreak of infectious diseases. Building on the experience, he tries to integrate clinical medicine, theoretical modelling, evolutionary biology, genetics, and molecular biology to gain a better understanding of viral diseases. In this way, we could gain a more comprehensive understanding of viral diseases. These findings would make a contribution to place where outbreak/epidemic/pandemic exists.

Lab website, <http://furuse-lab.strikingly.com/>