6th Annual Short Course in Basic and Translational Virology

Speakers' Biographies

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.

Professor Christian Bréchot holds MD and PhD degrees. Beginning in 1981 he studied molecular biology, virology, and cellular biology at the laboratory of Pierre Tiollais at the Pasteur Institute, and at the Necker school of medecine (Paris Descartes University); he obtained his PhD in biochemistry from the University of Paris VII in 1985. In 1989, he became full professor of Cell Biology and Hepatology,at Paris Descartes University and in 1997 he was appointed head of the clinical department of liver diseases at the Necker-Enfants Malades Hospital. He was head of a research unit at the Necker Faculty of Medicine, jointly supported by Inserm, Paris Descartes University, and the Pasteur Institute; he was also head of the National Reference Centre on viral hepatitis from 1998 to 2001. From 2001 to 2007, he was General Director of Inserm, the French National Agency for biomedical research. In 2008, he was appointed as Vice-President of Medical and Scientific Affairs of the Institut Merieux company, where he merged the efforts of four sectors including in vitro diagnostics, preventive vaccines, therapeutic vaccines, as well as food safety (Biomérieux, Transgene, Merieux Nutrisciences, Advanced Bioscience Laboratory). From October 2013-September 2017, he served as President of the Institut Pasteur developing programs to recruit eminent scientists, implementing an international multidisciplinary education and teaching program, fostering collaborative research and training strategies with major universities and research organizations, coalescing the international network of 33 Pasteur Institutes to encompass a global scientific vision and coordinated training activities, and positioning an ambitious and internationally oriented strategy for technology transfer and fundraising. He is currently a full Professor with tenure at the University of South Florida in Tampa and Executive Director of the Romark LLC Institute for Medical Research, also based in Tampa. Since October 2017, he has served as President of the Global Virus Network. He's research activities have been focused on viral hepatitis: B (HBV) and C (HCV), particularly with regard to their role in liver cancer (Hepatocellular carcinoma: HCC) and to the molecular mechanisms that drive liver regeneration and cancer. He has been the member of numerous scientific committees and societies and has received prestigious awards. He's the author of over 350 articles published in medical and scientific journals. His research activities have led him to obtain 13 patents and to contribute to the creation of 3 biotech companies : Rarecells, ALFACT Innovation, The Healthy Aging Company.

Dr. Kara Carter is Senior Vice President, Infectious Disease at Evotec where she is responsible for the virology portfolio of programs from research through development. She has over 30 years of discovery and development experience with growing levels of responsibility at Praecis Pharmaceuticals, Genzyme Corporation and Sanofi prior to her current engagement. Dr. Carter has worked in a number of viral systems including HBV, HCV, HIV, HSV, CMV, EBV, Influenza, RSV, and CHIKV as well as programs in oncology, immunology, neurology and renal disease. She has participated in or led project teams that produced multiple clinical stage assets including two approved products. Dr. Carter received her Ph.D. in Virology at the University of Chicago in the laboratory of Dr. Bernard Roizman and conducted post-doctoral studies at Harvard University and Brigham and Women's Hospital in the laboratory of Dr. Elliott Kieff. Dr. Carter also currently serves as the President-Elect of the International Society for Antiviral Research (ISAR).

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.

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 d 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.

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.

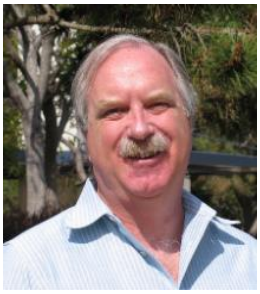
Dr. Shyam Kottilil is the Professor of Medicine and Associate Chief of Clinical Care and Research at the Institute of Human Virology (University of Maryland). He trained at Brown University and at the National Institutes of Health prior to his appointment at University of Maryland. He is a national leader 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.

Dr. Florian Krammer received his degree in biotechnology from the University of Natural Resources and Life Sciences, Vienna, Austria where he worked on insect cell derived influenza virus-like particle vaccines in the laboratory of Dr. Reingard Grabherr. For his postdoctoral work he joined Dr. Peter Palese's group at the Icahn School of Medicine at Mount Sinai, New York. His postdoctoral work focused on the development of a universal influenza virus vaccine. Dr. Krammer is now an Associate Professor at Mount Sinai. The Krammer laboratory studies cross-reactive antibody responses against the surface glycoproteins of RNA viruses including influenza, hanta and filoviruses.

Dr. Kratochvil. is the Vice President for Research for Nebraska Medicine and the Associate Vice Chancellor for Clinical Research at the University of Nebraska Medical Center, leading many of the clinical research initiatives for the academic health system. He serves as the Institutional Official for the UNMC Human Research Protection Program, Chief Medical Officer for UNeHealth, Director of the Center for Clinical and Translational Research, member of the Nebraska Biocontainment Unit leadership team, and member of the BioNebraska Board of Directors. Dr. Kratochvil is a Co-Principal Investigator of the federally-funded National Ebola Training and Education Center which serves to support research and preparedness nationally for the management of special pathogens, Co-Principal Investigator of the National Center for Health Security and Biopreparedness which serves to train federal partners and provide quarantine services for the U.S., and Co-Director of University of Nebraska's Global Center for Health Security.

Gene D. Morse, PharmD, is a SUNY Distinguished Professor, Director of the Center for Integrated Global Biomedical Sciences at the University at Buffalo and Co-Director of the SUNY Global Health Institute. Dr. Morse has been actively involved in NIH-supported drug development research since the introduction of antiretrovirals for the HIV epidemic. Dr. Morse is the Project Director for two NIH Fogarty International Center supported research training grants. One with the University of Zimbabwe (HIV Research Training Program) and the other with the University of the West Indies (UWI) Mona Campus (Global Infectious Diseases Research Training Program) in collaboration with SUNY Upstate Medical University. Dr. Morse is a member of the SUNY-UWI Center for Leadership and Sustainable Development as well as co-chair of the SUNY-UWI Health Research Task Force. Dr. Morse is also director of the Drug Development Core for the University at Buffalo Clinical and Translational Science Institute.

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.



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://immport.niaid.nih.gov/) through support from the U.S. National Institutes of Health.

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.

Professor Weaver is a virologist and vector biologist who studies arthropod-borne viruses (arboviruses), their transmission by mosquitoes, and develops vaccines to control the diseases that they cause. His research encompasses the ecology and epidemiology of enzootic arbovirus transmission cycles, virus-mosquito interactions, pathogenesis, and emergence mechanisms of epidemic strains. Recently he has focused on chikungunya and Zika viruses, which in 2013 arrived in the Americas to cause major epidemics. His chikungunya vaccine, licensed to Takeda Pharmaceuticals, is in late preclinical development. Prof. Weaver has published 300 peer-reviewed research papers, and has received the Walter Reed Medal from the Am. Soc. Trop. Med. Hyg. (ASTMH) for distinguished accomplishment in tropical medicine, and the Robert C. Gallo Award for Scientific Excellence from the Global Virus Network (GVN). He is a Fellow of the ASTMH, the American Academy of Microbiology and the National Academy of Inventors. Prof. Weaver chairs/co-chairs GVN's Chikungunya and Zika Task Forces, and serves as PI for the CDC-funded Western Gulf Center of Excellence for Vector-borne Diseases.

5th GVN Short Course participant selected as the Next Emerging Leader:

Elysse N. Grossi-Soyster, MS is a virologist in the LaBeaud lab with the Infectious Disease Division of the Pediatrics Department at Stanford University's School of Medicine. Elysse obtained her Master of Science degree in cell and molecular biology and infectious disease from California State University, East Bay, where she studied immunopathogenesis pathways for HIV-1 infection, and the effects of synthetic sex hormones on HIV-1 receptor binding and fusion. She worked with NASA Ames Research Center and University of California Santa Cruz to design biology-driven resource recovery technologies for astronaut life support for future Mars missions. She currently investigates mosquito-borne viruses, such as chikungunya virus, Zika virus, O'nyong N'yong virus, Dengue virus, and Rift Valley fever virus, with the hope of improving knowledge of pathogenesis of such viruses while understanding the true burden of disease. She also advocates for better science education and public interactions with science by running a STEM education nonprofit organization, called STEM Outreach Collective, teaching at her local community college, and maintaining a freelance infectious disease and global health blog.