

Global Fungal Infection Forum



Institute for Systems Biology, Seattle USA
February 22nd 2015





Seattle, Washington

February 22, 2015

Institute for Systems Biology 401 Terry Ave N, Room 106 Seattle, WA 98109



ORGANIZERS



The Global Action Fund for Fungal Infections (GAFFI): GAFFI was created in 2013 to improve the health of patients suffering from serious fungal infections by promoting better patient care, improved access to diagnostics and treatment, enhanced community engagement, and increased provision of educational resources to health professionals. For more information, please visit: http://www.gaffi.org/. This link shows the latest burden of fungal disease estimates: http://www.gaffi.org/gaffi-president-delivers-keynote-speech-in-montreal-on-global-burden-of-human-fungal-diseases/



BIO Ventures for Global Health (BVGH): BVGH is a results-oriented nonprofit organization dedicated to solving global health issues by forming connections between people, resources, and ideas. Founded in 2004 by the Biotechnology Industry Organization (BIO), BVGH engages the biopharmaceutical and biotechnology industry, leading academic and nonprofit research organizations, government agencies, and multilateral organizations in global health initiatives. For more information, please visit: http://www.bvgh.org/

ACKNOWLEDGEMENTS

The organizers would like to express sincere appreciation for and are thankful to everyone who contributed their support and cooperation in facilitating this meeting:

- Gracious thanks to our keynote speaker, plenary speakers, and panel session participants.
- Session chairs have a vital job; we thank you for agreeing to do this onerous task and for trying to keep people to time.
- And of course many thanks to those who have supported the forum financially:



Finally, thank you for being here!

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The Global Action Fund for Fundal Infections

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Global Fungal Infection Forum | February 22nd 2015, Seattle, USA

To all participants,

Welcome to the first Global Fungal Infection Forum. The toll of fungal diseases is over 1 billion people, yet these diseases are poorly represented by most global health organisations and national public health bodies. Burden varies by geography, country, co-infection, hospital hygiene and agricultural practice. Even though the global antifungal pharmaceutical market is about \$8 billion and growing at 2-3% annually, there are a limited number of useful antifungals.

The forum will focus on four fungal infections that represent the greatest mortality burden in the developing world: cryptococcal meningitis, histoplasmosis, *Pneumocystis* pneumonia and chronic pulmonary aspergillosis.

Together, we will consider together:

- 1. The totality of the burden of fungal infections
- 2. Fungal infection diagnosis and screening in patients with HIV/AIDS
- 3. Access and usage of antifungals for patients with HIV/AIDS
- 4. Chronic pulmonary aspergillosis complicating TB and its management

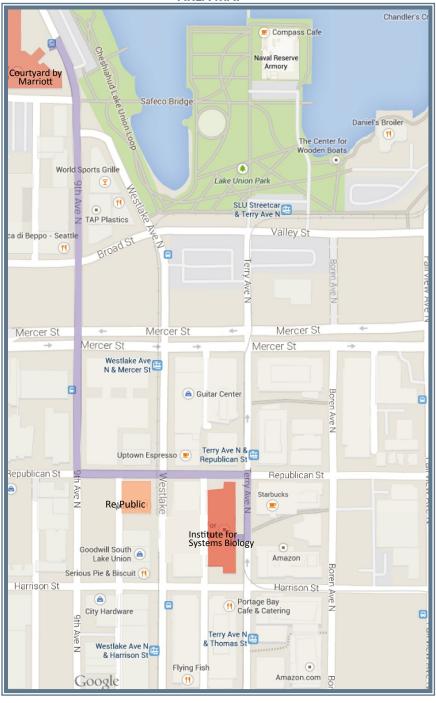
We want to identify key roadblocks to access to universal antifungals and diagnostics and canvass opinions on the major diagnostic test gaps and opportunities for new antifungal agents.

We look forward to hearing your perspectives on these issues, which will inform the global health agenda. You will have received the draft GAFFI Roadmap for the next decade, and your input to this before and after the meeting will be invaluable.

We look forward to fruitful meeting.

DW Denning FRCP FRCPath DCH FIDSA FMedSCi President, Global Action Fund for Fungal infections

AREA MAP



PROGRAM OVERVIEW

08:00-08:45	Registration and breakfast
08:45-09:00	Welcome and objectives of the meeting
09:00-09:30	Fungal infections: The key to improving AIDS and TB outcomes
09:30-10:15	Panel Session 1:
	Fungal infection diagnosis in HIV/AIDS patients
10:15-10:45	Coffee
10:45-11:00	Review of national fungal disease surveillance programs
11:00-11:45	Panel Session 2:
	Antifungals for fungal infections in HIV/AIDS patients
11:45-12:15	Briefing Session: Commercial opportunities and sustainability
12:15-13:15	Lunch break
13:15-14:15	Gap analysis: Drugs and diagnostics for HIV/AIDS fungal co- infections Open discussion
14:15- 15:00	Panel Session 3:
	TB that is not TB: Chronic Pulmonary Aspergillosis (CPA)
15:00-15:30	Coffee and group photo
15:30-16:15	Keynote presentation: Conquering AIDS and TB, reducing deaths
16:30-18:00	Round table:
	'Getting to Zero - HIV-related deaths'
18:00-18:15	Closing remarks and final thoughts
18:30 onwards	Reception and dinner



PROGRAM AGENDA

08:00-08:45 Registration and breakfast

08:45-09:00 Welcome and objectives of the meeting

Victor Rydgren (GAFFI, Switzerland) and Jennifer Dent (BVGH, USA)

09:00-09:30 Fungal infections: The key to improving AIDS and TB

outcomes

David Denning (University of Manchester, UK; GAFFI, Switzerland)

Topics to be covered in this session:

- Value of screening and the impact of early diagnosis on outcomes
- Explore diagnostic approaches available for detection in adults and children
- Assess the impact of a good diagnostic on treatment decisions
- Compare the outcomes of testing in reference laboratories versus point-of-care diagnosis

Introduction and moderator:

Arnaldo Colombo (Federal University of São Paulo, Brazil)

Panelists:

- -Tom Chiller (Centers for Disease Control and Prevention-CDC, USA)
- -David Boulware (University of Minnesota, USA)
- -Beatriz Gomez (Universidad del Rosario, Columbia)
- -Blanca Samayoa (Asociación de Salud Integral Guatemala)
- -Carlos Fritzsche (University of Rostock Medical School, Germany)

10:15-10:45 *Coffee break*

10:45-11:00 Review of national fungal disease surveillance programs

Arunaloke Chakrabarti (Postgraduate Institute of Medical Education & Research-PIMER, India)

11:00-11:45 <u>Panel Session 2:</u> Antifungals for fungal infections in HIV/AIDS patients

Topics to be covered in this session:

- Currently available antifungals available and their utility
- Drug-drug interactions of antifungals and antiretrovirals
- Antifungal costs and sustainability
- Need for proper training to ensure accurate dosing and treatment monitoring

Introduction and moderator:

Peter Pappas (University of Alabama, USA)

Panelists:

- -Juan Luis Rodriguez-Tudela (GAFFI, Switzerland; University of Manchester, UK)
- -Lenias Hwenda (Medicines for Africa, Switzerland)
- -Andrew Kambugu (Infectious Disease Institute-IDI, Uganda)
- -Jonathan Kaplan (CDC, USA)

11:45-12:15 <u>Briefing Session</u>: Commercial opportunities and sustainability

- New diagnostics opportunities: products, strategies, and markets Malcolm Richardson (Mycology Reference Centre, Manchester; University of Manchester, UK; International Society for Human and Animal Mycology-ISHAM)
- New antifungals: what do we need?

Thomas Patterson (San Antonio Center for Medical Mycology; The University of Texas Health Science Center at San Antonio, USA)

12:15-13:15 Lunch break

13:15-14:15 Gap analysis: drugs and diagnostics for HIV/AIDS fungal co-infections

Peter Godfrey-Faussett (UNAIDS, Switzerland; London School of Hygiene and Tropical Medicine, UK)

Open discussion

Led by Ade Fakoya (The Global Fund, Switzerland)

14:15- 15:00 Panel Session 3: TB that is not TB: Chronic Pulmonary Aspergillosis (CPA)

Topics to be covered in this session:

- The diagnosis, treatment, and management of CPA
- Confusion and TB misdiagnosis due to CPA
- The need of trained personnel and diagnostics

Introduction and moderator:

Haileyesus Getahun (WHO, Switzerland)

Panelists:

- -Gilla Kaplan (Bill & Melinda Gates Foundation, USA)
- -lain Page (University of Manchester, UK)
- -Arunaloke Chakrabarti (PIMER, India)
- -Jeremiah Chakaya (Kenya Association for the Prevention of Tuberculosis and Lung Disease-KAPTLD, Kenya)

15:00-15:30 Coffee

15:30-16:15 <u>Keynote presentation</u>: Conquering AIDS and TB, reducing deaths

Douglas Shaffer (Chief Medical Officer, Office of the Global AIDS Coordinator, United States Government)

16:30-18:00 Round table: 'Getting to Zero - HIV-related deaths'

Participants will identify action points for the development of a tenyear roadmap to reduce global mortality due to fungal infections.

Topics to be covered in this session:

- What guidelines are needed?
- What epidemiological data is needed?
- What are the challenges to sustainable supply of antifungals and access to affordable prices?
- What should GAFFI be doing to facilitate access to drugs and diagnostics in developing world?
- Where does capacity need to be built?

Moderators:

David Denning (University of Manchester, UK; GAFFI, Switzerland)
David Perlin (PHRI, New Jersey Medical School-Rutgers, USA)

Participants:

- -William Powderly (Washington University, St. Louis, USA)
- -Glenda Gray (South African Medical Research Council)
- -Ellis Owusu-Dabo (Kwame Nkrumah University of Science & Technology-KNUST, Kumasi Centre for Collaborative Research into Tropical Medicine-KCCR, Ghana)
- -John T. Brooks (CDC, USA)
- -Meg Doherty (WHO, Switzerland)

18:00-18:15 Closing remarks and final thoughts

David Denning (University of Manchester, UK; GAFFI, Switzerland)

18:30 onwards: Reception and dinner



Victor Rydgren, GAFFI; Assessio Norge AS



Mr. Rydgren graduated in Economics from Norway. He has broad international sales and marketing expertise, including concept development and creative problem solving. Victor worked for UNICEF in Geneva as Deputy Director for the Private Sector Division and later took over as Chair of the Norwegian National committee for UNICEF. While at UNICEF, he travelled to program field sites and

gained experience in some of the areas where GAFFI is now planning to have a global impact.

Jennifer Dent, BIO Ventures for Global Health (BVGH)



Ms. Dent joined BVGH in September 2011 and took over leadership of the organization in October 2012. She comes to BVGH with more than 20 years of broad-based pharmaceutical and biotechnology experience. In her previous role, she was an alliance director at Roche/Genentech in South San Francisco. Jennifer has held various senior management positions in sales, marketing, global strategy, and business

development at Roche and Genentech in Canada, Switzerland, New Jersey, and California. She co-founded Sound Biotechnology, and prior to that served as vice president, business development, marketing and sales at CombiMatrix Corporation in Washington. Jennifer graduated from the University of Western Ontario with a BS, and she completed an MBA at Western's Richard Ivey School of Business.

David Denning, GAFFI; University of Manchester



Dr. Denning is an infectious diseases clinician with expertise in fungal diseases. He manages the National Aspergillosis Centre, Manchester, a the referral center in the UK for all patients with chronic pulmonary aspergillosis. His current foci of interest are chronic and allergic pulmonary fungal disease, the global burden of fungal infection, and azole resistance in Aspergillus. David is also involved in teaching, for both

clinical scientists and physicians. He leads LIFE (Leading Internal Fungal Education), which is focused on improving patient outcomes through advocacy and education. He was instrumental in the establishment of the Mycology Reference Centre in Manchester, which grew out of the Fungal Testing Laboratory he had founded. He is the founder of 2 biotechnology companies – F2G Ltd (antifungal drug discovery and development) and Myconostica Ltd (now Lab21) for molecular diagnostic tests for fungi.

Arnaldo Colombo, Federal University of São Paulo



Dr. Colombo is a Professor of Medicine in the Division of Infectious Diseases at the Federal University of São Paulo-UNIFESP. He is also the founder and Head of UNIFESP's Special Mycology Laboratory, a national reference laboratory for yeast identification, genotyping and evaluation of antifungal resistance. Arnaldo has organized several multicenter surveillance studies to characterize the epidemiology of

emergent fungal infections in Brazil, and has actively participated in several worldwide surveillance programs to evaluate azole antifungal resistance to Candida species. He has been instrumental in organizing several guidelines for the clinical management of invasive fungal infections in Latin America. Arnaldo received both his medical degree and PhD from UNIFESP.

Tom Chiller, Centers for Disease Control and Prevention-CDC



Dr. Chiller is the Deputy Chief of the Mycotic Diseases Branch at the Centers for Disease Control and Prevention (CDC) in Atlanta and serves as the Associate Director for Epidemiologic Science in the Division of Foodborne, Waterborne, and Environmental Diseases at the CDC's National Center for Emerging and Infectious Zoonotic Diseases. With over 15 years of experience at the CDC,

Tom is an infectious disease and mycotics expert with specific interest in detecting and preventing cryptococcal infections in immunocompromised HIV patients. He continues to practice at the VA Hospital in Atlanta and serves as a faculty member in the Division of Infectious Diseases at the Emory School of Medicine. Tom completed his medical and public health degrees at Tulane University.

David R. Boulware, University of Minnesota



Dr. Boulware is an Associate Professor and the Associate Director of Global Health Programs in Internal Medicine at the University of Minnesota. David is an infectious disease physician-scientist with formal training in public health, clinical trials, and tropical medicine. He combines his epidemiology and biostatistics training with basic science investigations into disease pathogenesis. His primary research

interests are in meningitis in resource-limited areas, specifically cryptococcal meningitis, HIV immune reconstitution inflammatory syndrome (IRIS), and incorporating quality improvement initiatives in order to improve patient care. David's current research is focused on improving the clinical outcomes of HIV-infected persons with cryptococcal meningitis. David has on-going research collaborations in Uganda, South Africa, Tanzania, Thailand, and the United Kingdom. David received his MD from Indiana University.

Beatrice Gomez, Universidad del Rosario; Corporación para Investigaciones Biológicas (CIB)



Dr. Gomez is a Professor at the School of Medicine and Health Sciences at the Universidad del Rosario in Colombia and is also a senior scientist in the Medical and Experimental Mycology group of the Corporación para Investigaciones Biológicas (CIB). She has worked for the US CDC, as Chief of the Diagnostic Development Unit. Her research interest is in the characterization and

diagnosis of human pathogenic fungi, specifically histoplasmosis and other mycoses caused opportunistic fungal infections. She has led multi-center studies that develop and validate methods for fungal diseases diagnosis and specially those affecting immunocompromised host. She has organized courses to train undergraduate and postgraduate professionals in the field of Medical Mycology. She obtained her PhD in Medical Mycology in King´s College, University of London in 2000 and continued her training there as a postdoctoral fellow supported by a Wellcome Trust Training Fellowship for Scientists from Tropical and Developing Countries.

Blanca Samayoa, Asociación de Salud Integral; Universidad de San Carlos de Guatemala



Dr. Samayoa is the Research and Development Director at the Asociación de Salud Integral and a Professor of Epidemiology at Universidad de San Carlos de Guatemala (USAC). She also coordinates a Scientific-Technical Collaborative Program between Institute of Health Carlos III in Spain and the University of San Carlos of Guatemala for strengthening teaching and research capabilities in infectious diseases. Her

specific research interest is in Disseminated Histoplasmosis (DH) co-infection complicating HIV/AIDS in resource-limited settings.

Carlos Fritzsche, University of Rostock Medical School



Dr. Fritzsche is the attending physician at the University of Rostock Medical School with specialization in Internal Medicine and Infectious Diseases. He received his medical degree from the Friedrich-Alexander-University of Erlangen/Nürnberg in Germany and he completed his residency at the Department of Infectious Diseases and Tropical Medicine at the University of Rostock Medical School. For the

last 10 years he has been responsible for the HIV outpatient department. He has been a member of the HIV/AIDS committee of Mecklenburg-Vorpommern in Germany since 2007. Dr. Fritzsche actively participates in the European ESTHER Alliance partnership between the Department of Infectious Diseases and Tropical Medicine of the University of Rostock Medical School in Germany and the Regional Hospital Limbe in Cameroon.

Arunaloke Chakrabarti, PIMER



Dr. Chakrabarti is a professor and the Head of the Department of Medical Mycology at the Postgraduate Institute of Medical Education & Research in Chandigarh-PIMER, India. His major research interests include fungal-sinusitis, mucormycosis, and hospital acquired fungal infections. Arunaloke's laboratory, The Centre of Advanced Research in Medical Mycology, has identified and studied the endemic regions of

fungal sinusitis, sporotrichosis, penicilliosis and the source of *Cryptococcus gattii* in India. His laboratory has also investigated many nosocomial fungal outbreaks in developing countries, and has developed molecular identification and typing methods of zygomycetes. Arunaloke is a driving force in the development of the discipline of medical mycology and laboratories in India. Arunaloke earned his medical degree at PIMER.

Peter Pappas, University of Alabama



Dr. Pappas is a Professor of Medicine in the Division of Infectious Diseases at the University of Alabama in Birmingham. He is currently the PI of the Mycoses Study Group (MSG), a recently reorganized clinical trials group and educational organization. He is also the PI of a national network of transplant centers, TRANSNET, which in conjunction with CDC, provides epidemiologic and treatment

information concerning transplant recipients who develop invasive fungal infections. Peter's research interests include transplant-associated infections, including the invasive mycoses. In addition, he has an interest in diagnosis, epidemiology, and new therapeutic approaches for invasive candidiasis, cryptococcosis, aspergillosis, sporotrichosis, blastomycosis, and histoplasmosis. Peter received his medical degree from the University of Alabama in Birmingham.

Juan Luis Rodríguez-Tudela, GAFFI; University of Manchester



Dr. Rodriguez-Tudela is a Specialist in Clinical Microbiology and was a founder and director of the Mycology Reference Laboratory of Spain at the National Centre for Microbiology of Instituto de Salud Carlos III. As director, he ran a variety of research programs focused on human fungal infections, early diagnosis of invasive fungal infections, standardization of antifungal susceptibility testing, resistance

mechanisms, and taxonomy of fungal species. Juan Luis has served as an advisor of the PAHO on the Antifungal Resistance Surveillance Network in Latin-America. His group has held several workshops focused in diagnosis and resistance detection of fungi in various South American countries. He earned his MD at Complutense University of Madrid and his PhD at the Autonomous University de Madrid.

Lenias Hwenda, Medicines for Africa



Dr. Hwenda is the Founder of Medicines for Africa, an organization that focuses on bringing together partners from across sectors to find sustainable ways of improving access to medicines in African countries. Lenias is a trained immunologist who specialized in infectious disease vaccine research and development at the University of Oxford and Rockefeller University. She is a global health

policy expert on access to medicines and an interdisciplinary professional with expertise in international affairs, the WHO, and UNAIDS governance processes. Her work on health policy with African country missions for the UN in Geneva involved global policy formulation, advising senior delegates, and conducting high-level policy negotiations. She has publications in areas that include poor access to medicines, clinical trials, pandemic influenza preparedness, intellectual property issues in global health, counterfeited medical products, health security, and health.

Andrew Kambugu, Infectious Diseases Institute-IDI



Dr. Kambugu is the Head of the Research Program at the IDI, a part of Makarere University College in Kampala. He supervises the research portfolio and research strategy of the IDI. One such strategy is to create an enabling environment for research teams to do research work that can lead to treatment gains in Africa. Andrew's fungal disease research interest includes the treatment outcomes of

cryptococcal meningitis in HIV+ patients. Andrew is a formally trained physician in infectious diseases from Makarere University with a background in clinical research.

Jonathan Kaplan, Centers for Disease Control and Prevention



Dr. Kaplan is the Chief of the HIV Care and Treatment Branch at the CDC Center for Global Health. He is responsible for the implementation of the President's Emergency Plan for AIDS Relief (PEPFAR) in African and Asian countries. In addition, Jon co-chairs the PEPFAR Care and Treatment Steering Committee and the Care and Support Technical Working Group. He has authored the CDC/NIH/

HIV Medicine Association of Infectious Diseases Society of America (IDSA) Guidelines for Prevention and Treatment of Opportunistic Infections in HIV-Infected Adults and Adolescents since 1995 and he represents the CDC on the U.S. Department of Health and Human Services Panel on Antiretroviral Guidelines for Adults and Adolescents. Jon completed his MD/PHD at Cornell University.

Malcolm Richardson, Mycology Reference Center; University of Manchester



Dr. Richardson is the Director of the Mycology Reference Centre, Wythenshawe Hospital, Manchester and has an affiliate appointment at the University of Manchester as a Professor of Medical Mycology. His clinical and laboratory investigations over the last 42 years have focused on the pathogenicity and diagnosis and epidemiology of superficial and systemic fungal infections. More recently, he has applied his

diagnostic experience to investigating the role of moulds in "sick building syndrome". Malcolm is currently the President-Elect of the International Society of Human and Animal Mycology (ISHAM) and will become ISHAM President this year.

Thomas Patterson, San Antonio Center for Medical Mycology; The University of Texas Health Science Center at San Antonio



Dr. Patterson is a Professor of Medicine and Chief of the Division of Infectious Diseases at the University of Texas Health Science Center in San Antonio, Texas. He is also Director of the San Antonio Center for Medical Mycology. He has extensive experience in opportunistic fungal infections. His clinical and research interests focus on the diagnosis and treatment of fungal diseases, particularly in immunocompromised

hosts. He has been involved in developing new antifungal drugs and in clinical trials of new antifungal compounds. Tom has published and lectured extensively on fungal infections. He received his Bachelor of Arts degree from Baylor University, in Waco, Texas and his medical degree from the University of Texas Medical School at Houston, Texas.

Peter Godfrey-Faussett, UNAIDS; London School of Hygiene and Tropical Medicine



Dr. Godfrey-Faussett is a professor at the LSHTM and consultant physician at the Hospital for Tropical Diseases with training in clinical infectious diseases and molecular genetics. He also worked with the Global Tuberculosis Programme of the World Health Organization for a year, where he was responsible for developing strategies to address the combined TB and HIV epidemic. On his return to London

he served as chairman for the Technical Review Panel of the Global Fund against AIDS, Tuberculosis and Malaria. A regular member of WHO expert groups, his research interests are focused on the impact of the HIV epidemic on TB control and on interventions to reduce both diseases. He is currently seconded full-time to UNAIDS, where he is the Senior Science Adviser with a wide ranging portfolio, including HIV cure, ARV-based HIV prevention, HIV vaccines, and synergies between the HIV and the non-communicable disease response.

Ade Fakoya, The Global Fund



Dr. Fakoya is the Senior Disease Coordinator for HIV at the Global Fund. Ade is a doctor. Before joining Global Fundin 2010, he worked for over ten years as a medical adviser to aid organizations in the United Kingdom, Asia, Africa, and Eastern Europe. His main role at the Global Fund, is to ensure the technical strength of the supported programs. He also ensures that the impact of investment is maximized, for

example by targeting the most-at-risk-populations for prevention interventions. At the Global Fund, Ade has provided technical, guidance and reprogramming advice on Phase 2 grant renewals totaling more than US \$3 billion. Ade was born and raised in London and received his medical degree from King's College, London.

Haileyesus Getahun, World Health Organization

Dr. Getahun is the Coordinator of the TB/HIV and community



engagement unit at the WHO Global TB Programme in Geneva, Switzerland. The core focus of this unit is to develop relevant policies, strategies, guidelines, and tools to advance universal access to TB and HIV prevention and care. Haileysus leads efforts to scale up the implementation of collaborative TB/HIV, community-based TB activities, and integration of TB into maternal, newborn and child health services. He also coordinates the Secretariat of

the Global TB/HIV Working Group of the Stop TB Partnership and sets the advocacy agenda for the global TB/HIV response. Haileyesus was trained as a medical doctor in Ethiopia followed by Masters and PhD training in public health from the Free University of Brussels (ULB), University of Ghent and Institute of Tropical Medicine in Belgium.

Gilla Kaplan, Bill and Melinda Gates Foundation



Dr. Kaplan is the Director of the Tuberculosis program at the Bill and Melinda Gates Foundation where she leads her team's efforts to accelerate the decline in tuberculosis incidence worldwide. She is an expert on the host cellular immune response to mycobacterial infections. Prior to joining the foundation full time, Gilla was a Professor of Medicine and Head of the Laboratory of Mycobacterial

Immunity and Pathogenesis at the Public Health Research Institute Center at the University of Medicine and Dentistry of New Jersey. Gilla holds an MSc and PhD in Cellular Immunology from the University of Tromsø in Norway.

lain Page, Univerisity of Manchester



Dr. Page is a trainee Infectious Diseases
Physician at the UK National Aspergillosis Centre
at University Hospital South Manchester, UK
and a PhD student at the University of
Manchester, UK. He completed undergraduate
training in Medicine and Virology at the
University of Edinburgh, UK and then worked as
a junior doctor in Edinburgh, Leeds and Glasgow
(UK). He was a Clinical Lecturer at the University

of Malawi before becoming a trainee Infectious Diseases physician in Manchester, UK. He has worked on aspergillosis for four years. His ongoing research includes a comparison of different commercial *Aspergillus* IgG assays and a cross-sectional survey of the prevalence of chronic pulmonary aspergillosis secondary to tuberculosis and HIV in Gulu, Uganda. He has published previously on the interpretation of anemia in HIV and on the implementation of sepsis care and HIV testing guidelines.

Jeremiah Chakaya, Kenya Association for the Prevention of Tuberculosis and Lung Disease-KAPTLD



Dr. Chakaya has dedicated his professional life to the fight against TB and Lung disease as a clinician, advocate, manager and researcher based at the Center for Respiratory Diseases Research at the Kenya Medical Research Institute (KEMRI). He is also a founding member of the Kenya Association for the Prevention of Tuberculosis and Lung Disease (KAPTLD) where he currently serves as the de facto Chief

Executive Officer. In partnership with others, Jeremiah initiated the private-public mix for TB care and treatment project in Nairobi in 2002, which propelled him into the field of TB public health. Over the past ten years, Jeremiah has served in numerous WHO and Stop TB Partnership technical committees. Jeremiah completed his medical degree at the University of Nairobi.

Douglas Shaffer, Office of the U.S. Global AIDS Coordinator



Dr. Shaffer is the Chief Medical Officer for the Office of the U.S. Global AIDS Coordinator. Doug is focused on optimizing HIV prevention, care, and treatment services with parallel development of integrated research capacity and leadership. Prior to this appointment, Doug was a practicing physician and lecturer in Kenya, and was instrumental in leading the U.S. Government collaboration with the Government

of Kenya during the roll out of HIV services under the President's Emergency Plan for AIDS Relief (PEPFAR). He was also a Principal Investigator for the U.S. Military HIV Research Program AIDS Clinical Trials Group (ACTG) where he joined and mentored researchers in Africa on over 40 studies covering HIV epidemiology, health economics, and Phase I-III vaccine and therapeutic clinical trials (including tuberculosis and malaria co-infections).

David Perlin, PHRI-New Jersey Medical School



Dr. Perlin is the Executive Director at the Public Health Research Institute (PHRI) of the UMDNJ—New Jersey Medical School in Newark, NJ. His laboratory explores mechanisms of antifungal drug resistance, rapid detection of bloodstream pathogens in high-risk patients, discovery of novel molecules to combat tuberculosis, and the development of small animal models for respiratory pathogens. Dr.

Perlin helped establish PHRI as a leading tuberculosis and opportunistic infections research organization. Dr. Perlin earned his Ph.D. from Cornell University in 1980. He pursued postdoctoral studies at the Yale University School of Medicine and the University of Rochester School of Medicine and Dentistry.

William G. Powderly, Washington University at St. Louis



Dr. Powderly is the Director of the Institute for Public Health, Co-Director of the Division of Infectious Diseases, and a Professor of Medicine at Washington University in St. Louis. For more than twenty-five years, William has been actively engaged in research to improve treatments for patients with HIV. His initial studies focused on evaluating drug cocktails to identify effective first-line treatment for HIV.

More recently, he has also been involved in research to understand the long-term side effects of HIV medications, particularly metabolic problems like diabetes, lipid abnormalities, and osteoporosis. William's global health interests include finding solutions to develop human capital in resource-limited settings through shared educational

Glenda Gray, South African Medical Research Council



Dr. Gray is the President of AIDS Research at the South African Medical Research Council and is the Executive Director of the Perinatal HIV Research Unit of the Wits Health Consortium. She has expertise in the field of mother to child transmission of HIV, adolescent HIV prevention and treatment and HIV vaccine and microbicide research. Based in South Africa, Glenda is the Co-PI and Director of the HIV Vaccine Trials

Network (HVTN) Africa Programs. She became involved in HIV Vaccine research in 2000, and led the first clinical trials involving HIV Vaccines in South Africa (RSA). She was the Protocol Chair for the first phase IIB HIV vaccine trial to be conducted in sub-Saharan Africa and was in charge of the early clinical development of South Africa's first two candidate DNA and MVA HIV vaccines, which have been tested in both the USA and RSA under FDA and MCC regulations.

Ellis Owusu-Dabo, KCCR; KNUST



Dr. Owusu-Dabo is a Public Health Physician Specialist in Medical Epidemiology. He joined KNUST's department of Community Health in October 2002 and is currently the Scientific Director for the Kumasi Centre for Collaborative Research in Tropical medicine (KCCR). His area of research is mainly non-communicable disease in low-income country settings, although with an interest in communicable

diseases in particular, Tuberculosis. Dr. Owusu-Dabo completed his B.Sc., Human Biology and MBChB in Medicine and Surgery, and M.Sc. in Public Health at Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana. He then completed his doctoral work at University of Nottingham, at the Division of Epidemiology and Public Health, UK. He also offers lectures in the prestigious Tropical Medicine Course of BNITM since 2010.

John T Brooks, Centers for Disease Control and Prevention-CDC



Dr. Brooks is the Leader of the Clinical Epidemiology Team in the Division of HIV/AIDS Prevention at the CDC and continues to treat HIV patients at the Atlanta VA Medical Center. John has played a key role in the HIV Outpatient Studies (HOPS), one of the largest U.S. government-funded cohort studies. HOPS tracks HIV+ patients to monitor trends in demographics, symptoms, diagnoses, and

treatments in order to improve prevention and treatment of HIV/AIDS. With over 15 years of experience at the CDC, John is an expert in the field of opportunistic infections associated with HIV and has been instrumental in the development of guidelines for prevention and treatment of these infections in HIV+ patients. John completed his MD from Harvard Medical School.

Meg Doherty, World Health Organization-WHO



Dr. Doherty is the Coordinator of Treatment and Care in the Department of HIV/AIDS at the World Health Organization (WHO) in Geneva, Switzerland. She provides overall technical and managerial support to treatment and care for adults, adolescents, children, and pregnant women, as well as, the development of the new consolidated global antiretroviral treatment guidelines. Prior to joining WHO, Meg was a

faculty member at Johns Hopkins University School of Medicine. She has over 20 years of experience working in HIV, infectious diseases, and in resource-limited settings, she recently spent 5 years in Ethiopia leading and scaling up a comprehensive ARV program. Meg is a trained epidemiologist and infectious disease specialist who continues to see and care for HIV infected patients. Meg received her MD from Harvard Medical School and her MPH and PhD in Infectious Disease Epidemiology from JHU Bloomberg School of Public Health.



LIST OF ATTENDEES

-ATTENDEE LIST-

1	Aida Badiane	Cheikh Anta Diop University, Senegal
2	Alessandra Martini	European Commission, Belgium
3	Ana-Claire Meyer	Yale University, USA
4	Andrej Spec	Washington University in St. Louis, USA
5	Andrew Kambugu	Infectious Disease Institute-IDI, Uganda
6	Anna Gamell	Clinic of Ifakara, Tanzania; Swiss TPH
7	Arnaldo Colombo	GAFFI Advisor; Federal University of São Paulo, Brazil
8	Arunaloke Chakrabarti	GAFFI Advisor; Postgraduate Institute of Medical Education & Research, India
9	Beatriz Gomez	Universidad del Rosario, Colombia
10	Blanca Samoya	Asociación de Salud Integral, Guatemala
11	Carlos Fritzsche	University of Rostock, Germany
12	Christine Ross	CDC, USA
13	Colleen Connell	Clinton Health Access Initiative (CHAI), USA
13 14	Colleen Connell David Bell	
		USA
14	David Bell	USA Global Good, USA
14 15	David Bell David Boulware	USA Global Good, USA University of Minnesota, USA GAFFI President; University of
14 15 16	David Bell David Boulware David Denning	USA Global Good, USA University of Minnesota, USA GAFFI President; University of Manchester, UK University of Washington; Fred Hutchinson Cancer Research Center
14 15 16	David Bell David Boulware David Denning David Fredricks	USA Global Good, USA University of Minnesota, USA GAFFI President; University of Manchester, UK University of Washington; Fred Hutchinson Cancer Research Center (FHCRC), USA GAFFI Advisor; Public Health Research
14 15 16 17	David Bell David Boulware David Denning David Fredricks David Perlin	USA Global Good, USA University of Minnesota, USA GAFFI President; University of Manchester, UK University of Washington; Fred Hutchinson Cancer Research Center (FHCRC), USA GAFFI Advisor; Public Health Research Institute-PHRI & Rutgers University, USA Instituto Nacional de Ciencias Médicas y

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Haileyesus Getahun	WHO, Switzerland
lain Page	The University of Manchester, UK
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James Rosen	Bill and Melinda Gates Foundation, USA
Jeremiah Chakaya	Kenya Association for the Prevention of Tuberculosis and Lung Disease-KAPTLD, Kenya
Lawrence Joseph (Joe) Wheat	MiraVista Diagnostics, USA
John Abuga Guto	LIFE Program, Manchester, UK
John T Brooks	CDC, USA
Jonathan Kaplan	CDC, USA
Juan Luis Rodriguez Tudela	GAFFI, Univeristy of Manchester, UK
Kaushik L. Ramaiya	Shree Hindu Mandal Hospital, Tanzania
Kenly Sikwese	African Community Advisory Board- AFROCAB, Zambia
Lenias Hwenda	Medicines for Africa, Switzerland
Li Wang	Jilin University, China
Liqing Cen	Zhongshan University, China
	Jahit Sacarlal James Rosen Jeremiah Chakaya Lawrence Joseph (Joe) Wheat John Abuga Guto John T Brooks Jonathan Kaplan Juan Luis Rodriguez Tudela Kaushik L. Ramaiya Kenly Sikwese Lenias Hwenda Li Wang

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42	Liyan Xi	Zhongshan University, China
43	Luke Maitland	Meridian Bioscience Inc., USA
44	Malcolm Richardson	Mycology Reference Centre; University of Manchester, UK; ISHAM
45	Meg Doherty	WHO, Switzerland
46	Melissa Briggs	CDC, USA
47	Michael Boeckh	University of Washington; Fred Hutchinson Cancer Research Center (FHCRC), USA
48	Mike Peel	Scynexis, USA
49	Mrs. Lily Koros Tare	Kenyatta National Hospital, Kenya
50	Otu Akaninyene Asuquo	University of Calabar Teaching Hospital, Nigeria
51	Peter Godfrey-Faussett	UNAIDS, Switzerland; London School of Hygiene and Tropical Medicine, UK
52	Peter Pappas	University of Alabama, USA
53	Rita Oladele	Lagos University Teaching Hospital, Nigeria
54	Sean Bauman	Immuno-Mycologics IncIMMY, USA
55	Simeon Monda	Kenyatta National Hospital, Kenya
56	Slava Elagin	Meridian Bioscience Inc., USA
57	Sonia P. Sanchez, M.D.	Gilead Sciences Europe, UK
58	Takahiro Hirata	Astellas Pharma US Inc., USA
59	Tom Chiller	CDC, USA
60	Tom Patterson	San Antonio Center for Medical Mycology; The University of Texas Health Science Center at San Antonio , USA
61	Victor Rydgren	GAFFI, Switzerland; Assessio Norge AS, Sweden
62	William G. Powderly	Washington University in St. Louis, USA

