



THE ROYAL SOCIETY

SATELLITE MEETING ON  
**Accelerating vaccine development**

**Wednesday 17 and Thursday 18 November 2010**

The Kavli Royal Society International Centre, Chicheley Hall,  
Buckinghamshire

Organised by Professor Adrian Hill and Professor Brian  
Greenwood FRS

- **Programme**
- **Speaker biographies**

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## **Accelerating vaccine development**

**Wednesday 17 and Thursday 18 November 2010**

Organised by Professor Adrian Hill and Professor Brian Greenwood FRS

### **Day 1 – Wednesday 17 November 2010**

#### **10.00 Registration and coffee**

#### **10.30 Welcome and objectives by Professor Adrian Hill and Professor Brian Greenwood FRS**

#### **Session 1 – Current priority setting**

Chair – Professor David Salisbury CB, Department of Health, UK

#### **10.40 Industry**

Dr James Merson, Vaccine Research, Pfizer Inc, USA

#### **11.00 WHO**

Dr Joachim Hombach, Initiative for Vaccine Research, World Health Organization, Switzerland

#### **11.20 GAVI Alliance**

Mr Jon Pearman, GAVI Alliance, UK

#### **11.40 Veterinary priorities**

Dr Cyril Gay, United States Department of Agriculture, USA

#### **12.00 Funders perspective**

Dr Ted Bianco, Wellcome Trust, UK

#### **12.20 Further discussion**

#### **12.35 Lunch**

#### **Session 2 – Current incentivisation strategies**

Chair – Professor Margaret Liu, ProTherImmune and Karolinska Institute, USA and Sweden

#### **13.30 Poverty related diseases**

Professor Peter Hotez, Sabin Vaccine Institute, USA

#### **13.50 African perspective**

Professor Richard Adegbola, Bill & Melinda Gates Foundation, Infectious Diseases Development, Global Health Program, USA

#### **14.10 AVI**

Dr Orin Levine, International Vaccine Access Center, Johns Hopkins Bloomberg School of Public Health, USA

**14.30 Global health**

Dr David Heymann, Health Protection Agency, UK

**14.50 Discussion**

**15.20 Tea**

**16.00 EU / SANCO / Veterinary**

Dr Faye Ioannou, European Medicines Agency, UK

**16.20 US government perspective**

Dr Michael Perdue, Biomedical Advanced Research and Development Authority, USA

**16.40 Cancer and therapeutic vaccines**

Professor Margaret Liu, ProTherImmune and Karolinska Institute, USA and Sweden

**17.00 Open forum**

**18.30 Dinner**

**Day 2 – Thursday 18 November 2010**

**Session 3 – Towards better coordination and planning**

Chair – Dr Ted Bianco, Wellcome Trust, UK

**09.00 Academia perspective**

Professor Adrian Hill, The Jenner Institute, University of Oxford, UK

**09.20 Veterinary**

Dr Bryan Charleston, Institute of Animal Health, UK

**09.40 New childhood vaccines**

Dr François Meurice, GlaxoSmithKline Biologicals, UK

**10.00 Regulatory perspective**

Dr Mair Powell, Medicines & Healthcare Products Regulatory Agency, UK

**10.20 Discussion**

**10.35 Coffee**

**Session 4 – Perspectives on the way forward**

Chair – Dr Myron Levine, Center for Vaccine Development, University of Maryland, USA

**11.00 UK**

Professor David Salisbury CB, Department of Health, UK

**11.20 European Commission**

Dr Arnd Hoeveler, Health Biotechnology Unit, European Commission, Belgium

**11.40 PDPs**

Dr Odile Leroy, European Vaccine Initiative, Germany

**12.00 Veterinary**

Dr Michael Witty, GALVmed, UK

**12.20 Discussion****12.35 Lunch****13.30 Academia**

Dr Myron Levine, Center for Vaccine Development, University of Maryland, USA

**13.50 Biodefence**

Dr Steve Chatfield, Emergent BioSolutions, UK

**14.10 Industrial**

Crucell, The Netherlands

**14.30 General discussion****15.00 Closing remarks**

Professor Brian Greenwood FRS, London School of Hygiene & Tropical Medicine, UK

Professor Adrian Hill, The Jenner Institute, University of Oxford, UK

**15.15 Close and tea**



## Organiser, speaker and chair biographies

### **Professor Richard Adegbola, Bill & Melinda Gates Foundation, Infectious Diseases Development, Global Health Program, USA (Speaker)**

Richard Adegbola joined the Bill & Melinda Gates Foundation in 2009 as Senior Program Officer, Pneumonia Clinical Studies. He has over 20 years of research experience in infections of the tropics particularly, pneumonia and meningitis caused by *Streptococcus pneumoniae* and *Haemophilus influenzae*. At the foundation, his role is taking pneumonia research findings to policy, implementation and evaluation for impact. He is responsible for vaccine impact studies, including impact evaluations for pneumococcal and meningococcal conjugate vaccines and the maternal immunization program, and for studies of the many causes of pneumonia in the developing world.

Prior to joining the Gates Foundation, he was Head of the Bacterial Diseases Programme at the UK MRC Laboratories in The Gambia. In addition to his MRC appointment he was a member of WHO Meningitis Vaccine Project Advisory Group and Vice Chair of EDCTP Board at The Hague. He was awarded the title and status of Honorary Visiting Professor in the Department of Infection, Immunity and Inflammation by University of Leicester in England in 2005 and served as a member of the Gambia Government Inter-Agency Committee for immunization and member of National Polio Expert Committee for The Gambia from 2001 to 2009.

### **Dr Ted Bianco, Wellcome Trust, UK (Speaker and Chair)**

Ted Bianco is Director of Technology Transfer at the Wellcome Trust with responsibility for the promotion of early stage R&D through translational research funding and the management of intellectual property arising from Wellcome Trust-sponsored research. Ted has 25 years experience in biomedical research, specializing in tropical medicine and infectious disease. He obtained his PhD at the London School of Hygiene and Tropical Medicine and subsequently worked at the Walter and Eliza Hall Institute in Melbourne, Imperial College of Science, Technology and Medicine in London and the Liverpool School of Tropical Medicine, where he was the Walter Myers Professor of Parasitology. He joined the Wellcome Trust in 1999 as head of the Centres and Major Initiatives department. Ted is an honorary visiting professor of the Liverpool School.

### **Dr Bryan Charleston, Institute of Animal Health, UK (Speaker)**

Dr Charleston obtained a BVetMed from the Royal Veterinary College, University of London, UK in 1982. After a period of time in Large Animal Practice, studied for a Masters degree in Molecular Biology at University College London in 1988, then a PhD degree, as a Wellcome Trust Scholar, from the University of London, UK, in 1991. He then carried out postdoctoral research, as a Wellcome Trust Post-doctoral fellow, at the Royal Veterinary College and the Babraham Institute, Cambridge for three years. He joined the Institute for Animal Health in 1994 and focussed on studies of the immune response to viral infections in cattle. In addition, he has provided advice and expertise on the design of infectious disease challenge models for a wide range of pathogens in important agricultural species. His research groups are based at the Compton site near Oxford and the Pirbright site in Surrey; the group's efforts are focused on understanding the immune response to Foot-and-Mouth disease virus in cattle to develop novel vaccines.

### **Dr Steve Chatfield, Emergent BioSolutions, UK (Speaker)**

Steve Chatfield is currently the Senior Vice President, Strategic Investments for Emergent BioSolutions Inc. In this role, Steve is responsible for Corporate Strategy and Mergers & Acquisitions. Emergent is a



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biopharmaceutical company focused on the development, manufacture and commercialization of vaccines and therapeutics that assist the body's immune system to prevent or treat disease.

Previously, Steve was Director of the Health Protection Agency Centre for Emergency Preparedness and Response (CEPR), and manages its Porton Down site. CEPR is responsible for the development of threat disease models, diagnostic capability, and vaccines. Its high containment laboratories are used to identify imported dangerous microbial pathogens such as Ebola or pathogens used in deliberate release i.e. bioterrorism. The HPA Emergency Response Department is also based on the Porton Down site.

Steve was formerly CEO and President of Emergent Product Development UK Limited and Chief Scientific Officer of Emergent BioSolutions, inc. Steve has spent 30 years working in the field of vaccine research and development within Industry, previously working at Microscience Ltd, Medeva PLC, Evans Medical, Wellcome Biotechnology and the Wellcome Foundation. He has had a broad range of experience and responsibilities encompassing all phases of vaccine development, including research, process and analytical development, toxicology, GMP manufacture, regulatory submissions and clinical studies in both Europe and the US, including compilation and submission of MAA and BLA dossiers. He has also written expert reports in support of regulatory submissions. His research efforts have focused on the molecular basis of pathogenicity of bacterial and viral infections. Much of this work has directed towards the development of novel vaccines and immunotherapeutics, particularly those that can be delivered by the oral route using live bacterial vectors. He has published over 95 papers in this field, written several book chapters and is regularly invited to speak at international meetings on vaccine R&D.

### **Dr Cyril Gay, United States Department of Agriculture, USA (Speaker)**

Dr Gay obtained a BSc in Chemistry and a Doctor of Veterinary Medicine from Auburn University, and a PhD in Microbiology from The George Washington University. Dr Gay has worked in the animal health research field for the last 25 years holding several positions of increasing responsibility in the federal government and the pharmaceutical industry. As Chief, Biotechnology Section, Center for Veterinary Biologics (CVB), United States Department of Agriculture (USDA), Dr Gay developed the procedures for licensing molecular vaccines that led to the first license for a live recombinant vectored vaccine. In the pharmaceutical industry (SmithKline Beecham Animal Health and Pfizer Animal Health) Dr Gay led several cross-functional teams that successfully developed and licensed veterinary vaccines for companion animals and livestock. As Director, Global Product Development, Pfizer Inc, Dr Gay developed strategic and tactical plans that interfaced R&D, clinical development, manufacturing, marketing, and product life-cycle management. Dr Gay joined Agricultural Research Service (ARS), USDA, in 2002. Dr Gay currently holds the position of Senior National Program Leader and provides program direction and national coordination for the Department's intramural animal health national research program, comprised of 10 research laboratories located in Ames, Iowa, East Lansing, Michigan, Clay Center, Nebraska, Athens, Georgia, Orient Point, New York, Beltsville, Maryland, Pullman, Washington, Manhattan, Kansas, Albany, California, and Mississippi State, Mississippi. Dr Gay was the 2010 recipient of the USDA Secretary's Honors Award for interagency response to the pandemic H1N1 influenza outbreak and the ARS Special Administrator's Award for outstanding and rapid research support for pandemic H1N1.

### **Professor Brian Greenwood FRS, London School of Hygiene & Tropical Medicine, UK (Organiser)**

Brian Greenwood qualified in medicine at the University of Cambridge, UK in 1962. Following house-officer appointments in London, he spent 3 years in Western Nigeria as a medical registrar and research fellow at University College Hospital, Ibadan. After receiving training in clinical immunology in the UK, he returned to

Nigeria in 1970, this time to help in establishing a new medical school at Ahmadu Bello University, Zaria where he developed his research interests in malaria and meningococcal disease whilst continuing to teach and practice both adult and paediatric medicine.

In 1980, he moved to the UK Medical Research Council Laboratories in The Gambia which he directed for the next 15 years. In The Gambia, he helped to establish a multi-disciplinary research programme which focused on some of the most important infectious diseases prevalent in The Gambia and neighbouring countries such as malaria, pneumonia, measles, meningitis, hepatitis and HIV2. Work undertaken during this period included demonstration of the efficacy of insecticide treated bednets in preventing death from malaria in African children and demonstration of the impact of *Haemophilus influenzae* type b and pneumococcal conjugate vaccines when deployed in sub-Saharan Africa.

In 1996, he was appointed to the staff of the London School of Hygiene and Tropical Medicine where he is now Manson Professor of Clinical Tropical Medicine. From 2001 -2008 he directed the Gates Malaria Partnership which supported a programme of research and capacity development in many countries in Africa directed at improving treatment and prevention of malaria. In 2008, he became director of a new malaria research capacity development initiative, supported by the Wellcome Trust and the Bill and Melinda Gates Foundation, the Malaria Capacity Development Consortium, which supports a post-graduate malaria training programme in five universities in sub-Saharan Africa. He is also director of a new consortium which is studying the epidemiology of meningococcal infection in Africa prior to the introduction of a new conjugate vaccine.

Brian Greenwood has published over 600 papers on a variety of infectious diseases but particularly malaria. He has acted as an advisor to WHO, the Bill and Melinda Gates Foundation, a number of public private partnerships and pharmaceutical companies engaged in the development of drugs or vaccines for use in the developing world.

**Dr David Heymann, Health Protection Agency, UK (Speaker)**

Dr David Heymann is Chair of the Health Protection Agency in London, Head of the Centre on Global Health Security at Chatham House and Professor of Infectious Disease Epidemiology at the London School of Hygiene and Tropical Medicine. Previously he was the World Health Organization's Assistant Director-General for Health Security and Environment. He also represented the Director-General for polio eradication. He was Executive Director of the WHO Communicable Diseases Cluster till 2003. He held the post of Director for WHO Programme on Emerging and other Communicable Diseases from 1995 to 1998. He served as the Chief of research activities in the WHO Global Programme on AIDS until 1995.

Before joining WHO, Dr Heymann worked for 13 years as a medical epidemiologist in sub-Saharan Africa on assignment from the US Centers for Disease Control and Prevention (CDC). In this capacity he supported ministries of health in designing and implementing programmes in infectious disease prevention and control, with emphasis on childhood diseases, malaria and the African haemorrhagic fevers. He also worked in India for two years as a medical epidemiologist with the WHO Smallpox Eradication Programme.

**Professor Adrian Hill, The Jenner Institute, University of Oxford, UK (Organiser and Speaker)**

Adrian Hill trained at Trinity College Dublin and Oxford is now Professor of Human Genetics and Director of the Jenner Institute at Oxford University. He leads research programmes in genetic susceptibility to tropical infectious diseases and in vaccine design and development.

His group identified heterologous prime-boost immunisation using non-replicating vectors as an exceptionally potent approach for inducing protective T cell responses in murine malaria and undertook the first clinical trials of this vaccination strategy. In 2005 he was appointed Director of the Jenner Institute, a new initiative aimed at accelerating public sector vaccine development for a variety of human and livestock infectious diseases. The Institute aims to fill the gap between pre-clinical vaccine design and large-scale field efficacy trials particularly for infections that pose great disease burdens in developing countries. Over fifty clinical trials have been undertaken in recent years by Jenner Investigators who are developing new vaccines against malaria, HIV, tuberculosis, meningitis, pandemic influenza and hepatitis.

He currently also chairs the Centre for Clinical Vaccinology and Tropical Medicine and the Clinical Biomanufacturing Facility in Oxford. He has published over 350 research papers. He is a Fellow of the UK Academy of Medical Sciences and the Royal College of Physicians and a NIHR Senior Investigator.

**Dr Arnd Hoeveler, Health Biotechnology Unit, European Commission, Belgium (Speaker)**

Arnd Hoeveler received his PhD from the Institute of Genetics at the University of Cologne. In 1991 he was awarded a full Professorship in Biochemistry and Molecular Biology in France. He served several positions in France before joining the Research Directorate at the European Commission in 1996.

Between 2001 and 2006 he served as Head of Unit, covering Infectious Diseases, and led several European programmes dealing with HIV/AIDS, Malaria and Tuberculosis.

In October 2006 he took charge of the European Commission's Health Biotechnology programme, dealing with Diagnostics, Regenerative Medicine, Animal Replacement Strategies, Child Health, and the Innovative Medicine Initiative.

He is a board member of the European Federation of Immunological Societies and serves on several International Advisory Boards.

**Dr Joachim Hombach, Initiative for Vaccine Research, World Health Organization, Switzerland (Speaker)**

Dr Joachim Hombach is acting Head of the World Health Organization's Initiative for Vaccine Research (IVR). In his former managerial positions at IVR, he was in charge of policy & strategy and implementation research. He also served as focal point for the flavivirus vaccine portfolio, with particular emphasis on dengue and Japanese encephalitis vaccines.

Before joining WHO, Dr Hombach had a career in vaccine research and implementation policy, with a focus on vaccines for the developing world. In this context, he had assignments as Director of vaccine policy at GlaxoSmithKline Biologicals SA, and as Scientific Officer with the European Commission. In the latter function, he was seminal in setting up the European and Developing Countries Clinical Trials Partnership. He also served as board member of the European Malaria Vaccine Initiative.

Dr Hombach started his career as a researcher in molecular and cellular immunology, where he worked at the University of Zürich, Switzerland and the Max-Planck Institute for Immunology in Freiburg, Germany. He holds a PhD from the University of Cologne, Germany. He also holds a Master of Public Health from Johns Hopkins University, Baltimore, United States of America. Multiple peer-reviewed publications have emerged from his work.



**Professor Peter Hotez, Sabin Vaccine Institute, USA (Speaker)**

Peter J Hotez, MD, PhD is Distinguished Research Professor and Chair of the Department of Microbiology, Immunology, & Tropical Medicine at The George Washington University, and President of the Sabin Vaccine Institute an affiliated non-profit research, development and advocacy organization.

Dr Hotez received a Bachelor's degree in Molecular Biophysics and Biochemistry *magna cum laude (phi beta kappa)* from Yale University, a PhD from Rockefeller University, and a Doctorate in Medicine from Weill Cornell Medical College. He obtained pediatric residency training at Massachusetts General Hospital, and postdoctoral training at Yale University School of Medicine. Dr Hotez's research focuses on vaccine development for parasitic diseases, with an emphasis on recombinant vaccines for hookworm and schistosomiasis. He is Director and Principal Investigator of the Human Hookworm Vaccine Initiative (HHVI), a product development partnership supported by the Gates Foundation and other sources. Dr Hotez also has a strong policy interest to promote the control of neglected tropical diseases (NTDs) and in 2006 at the Clinton Global Initiative Dr Hotez helped to co-found the Global Network for NTDs for providing access to essential NTD drugs.

In 2007, Dr Hotez became the founding Editor-in-Chief of *PLoS Neglected Tropical Diseases* and he is currently the President of the American Society of Tropical Medicine & Hygiene. Dr Hotez has published over 200 peer-reviewed journal articles as well as several books, including *Forgotten People, Forgotten Diseases* (ASM Press).

**Dr Faye Ioannou, European Medicines Agency, UK (Speaker)**

Dr Ioannou received a degree in Veterinary Medicine from Aristotle's University of Thessaloniki, Greece and completed further studies in the area of European politics and economics. She worked for DEFRA in the risk assessment team during the Foot and Mouth outbreak in 2001 in the UK, and was later involved in vaccine development for Pfizer Animal Health. In 2004 she moved to the Food and Veterinary Office (FVO) of the European Commission (DG SANCO) in Ireland and was responsible for the international affairs of the FVO. She currently works in the Veterinary Unit of the European Medicines Agency (EMA) in London, mainly in charge for the authorisation of veterinary vaccines.

**Dr Odile Leroy, European Vaccine Initiative, Germany (Speaker)**

In 2006, Dr Odile Leroy, was nominated the executive director of the European Malaria Vaccine Initiative, now called European Vaccine Initiative, which was created in 1998 through a supportive action of the European Commission. Since its inception EVI (EMVI) has supported the numerous scientists from Europe and developing countries:

- 1) Contributing to the development of 17 malaria antigens in 11 vaccine formulations, including three specifically targeted at preventing malaria in pregnant women,
- 2) Advancing 10 vaccine candidates into phase 1 trials, two of which have been transitioned to partners for further development in africa, and
- 3) Taking a leadership role in efforts to standardize and harmonize vaccine development efforts in europe. EMVI has broadened its scope to other poverty-related diseases vaccine in 2009, and became EVI.

Trained as a physician, epidemiology, clinical pharmacology and vaccinology, Dr Odile Leroy has spent most of her carrier in vaccine development, as a scientist in Africa for 9 years, as corporate clinical director of airborne vaccines for 10 years at Pasteur Mérieux Connaught (now Sanofi Pasteur). She joined EMVI in 2002

as clinical and regulatory director. From 2005 to 2006 she led as executive director the European and Developing Countries Clinical Trial Partnership (EDCTP).

She is member of the Science Board of the Brighton Collaboration, coordinator of several EC funded vaccine, and member of the WHO product development group for the measles aerosol project.

**Dr Myron Levine, Center for Vaccine Development, University of Maryland, USA  
(Speaker and Chair)**

Myron M Levine, MD, DTPH, is Director of the Center for Vaccine Development, Head - Division of Geographic Medicine, Professor of Medicine, Pediatrics, Microbiology and Immunology, and Epidemiology and Preventive Medicine at the University of Maryland School of Medicine, Baltimore. He received the MD degree (1967) from the Medical College of Virginia, Richmond, and the DTPH diploma (1974) from the London School of Hygiene and Tropical Medicine, England. He has extensive experience in design and evaluation of vaccines to prevent bacterial enteric infections, particularly *Salmonella*. Dr Levine is one of the most vocal advocates of mucosal immunization, ie, the administration of vaccines by oral and intranasal routes to avoid the unpleasantness and occasional dangers of parenteral injections. He has made substantial contributions in basic vaccinology, bacterial pathogenesis, clinical research, field epidemiology and public health. He sits on editorial boards of Vaccine, Human Vaccines, and Public Health Reviews. Dr Levine is consultant to many organizations, for example, the World Health Organization, NIH, Institute of Medicine and the US Department of Defense. He holds numerous society memberships, for example, the Institute of Medicine of the National Academy of Science, the Association of American Physicians, the American Society of Clinical Investigation, and the Academy of Microbiology. He's past President of the American Epidemiological Society and the American Society of Tropical Medicine and Hygiene. Dr Levine has authored/co-authored 498 scientific articles, 114 chapters and is Senior Editor of New Generation Vaccines, 4<sup>th</sup> ed. published in 2010.

**Dr Orin Levine, International Vaccine Access Center, Johns Hopkins Bloomberg School of Public Health, USA (Speaker)**

Orin S Levine, PhD, is an Associate Professor in the Department of International Health, Johns Hopkins Bloomberg School of Public Health, and Executive Director of the International Vaccine Access Center (IVAC). Dr. Levine received his PhD in Epidemiology from Johns Hopkins Bloomberg School of Public Health. For over 15 years Dr Levine has worked on efforts to accelerate the development, evaluation and introduction of new vaccines into routine immunization programs in developing countries. With over 30 employees and an annual budget of >\$20 million, IVAC aims to accelerate access to vaccines for children everywhere, through evidence-driven policy-making. Dr Levine is a Member of the Decade of Vaccines Steering Committee and has authored over 75 peer-reviewed publications and book chapters.

**Professor Margaret Liu, ProTherImmune and Karolinska Institute, USA and Sweden  
(Speaker and Chair)**

Margaret A Liu, obtained an MD from Harvard Medical School then completed Internship and Residency in Internal Medicine and a Fellowship in Endocrinology, all at Massachusetts General Hospital with Board Certification in Internal Medicine and in Endocrinology and Metabolism. Dr Liu was a Visiting Scientist at the Massachusetts Institute of Technology, Instructor at Harvard Medical School, and the recipient of an NIH Physician Scientist Award. She served as Senior Director at Merck Research Laboratories, Vice President of Vaccines Research and Gene Therapy at Chiron Corporation, Vice-Chairman of Transgène, and Senior Advisor in Vaccinology at the Bill and Melinda Gates Foundation.

Dr Liu currently consults in the fields of vaccine and immunotherapy and is a Foreign Adjunct Professor at the Karolinska Institutet in Stockholm. She is Vice-Chairman of the Board of Trustees of the International Vaccine Institute in Seoul, and is a member of various boards including the SAB of the Jenner Vaccine Institute, and served on: the NIH NIAID Council.

Dr Liu was named one of “The 50 Most Important Women Scientists” by Discover magazine in 2002. Her pioneering work in DNA vaccines has led to her receipt of honorary lectureships, including the Rose Lectureship, Columbia University College of Physicians and Surgeons, the Inaugural Saul Krugman Memorial Lecture, New York University, the M. R. Hilleman Lecture, Children’s Hospital of Pennsylvania, the Walter F Enz Memorial Lecture Series, The University of Kansas, the Oon International Fellowship in Preventive Medicine, Cambridge University, England, and the Karolinska Research Lecture series at the invitation of the Nobel Committee.

**Dr James Merson, Vaccine Research, Pfizer Inc, USA (Speaker)**

James is SVP and head of Vaccine Research West which has sites in the US (La Jolla) and Canada (Ottawa). He is accountable for developing both prophylactic and therapeutic vaccines for smoking cessation, asthma, Alzheimer’s Disease, cancer, cardiovascular disease and several infectious diseases.

James joined Pfizer, Sandwich, UK, in 1988 establishing Pfizer’s research efforts for HIV antiviral compounds. As head of the Antivirals therapeutic area, his research saw the discovery of HIV antiviral medicines such as Maraviroc (CCR5 antagonist), UK-453061 (NNRTI in PhII), PF-232795, (CCR5 antagonist in PhII), a novel inhibitor for HCV (PF-868554 in PhII). He led Pfizer’s first effort into gene therapy with *Immusol* for treating HIV, and as head of the Hit Discovery Group, established a Pfizer-wide process for the discovery of novel chemical matter through the use of *Evotec* and *Aurora* high throughput screening technologies.

James led the Vaccine Research Strategy team responsible for determining Pfizer’s investments in 2006 to establish a vaccine business leading to the acquisition of *PowderMed*, *Coley Pharmaceuticals*, and a collaboration with *Cytos*. James led the vaccines integration team responsible for merging the Pfizer and Wyeth vaccine portfolios and R&D organizations.

James received his BA (Hons) in Biology in 1983 from Bellarmine College, Louisville, Kentucky and PhD in 1988 in Microbiology and Immunology from Baylor College of Medicine, Houston, Texas, US. He is a member of the BSI, ISV, and is an adjunct professor at the Scripps Research Institute.

**Dr François Meurice, GlaxoSmithKline Biologicals, UK (Speaker)**

François Meurice is Vice President of Global Medical Affairs for Paediatric Vaccines at GlaxoSmithKline (GSK) Biologicals, a position he has held since 2008. He graduated as a medical doctor from the Catholic University of Louvain, Belgium before specialising in Tropical Medicine in Antwerp, Belgium.

Dr Meurice spent many years practicing medicine in African countries, including Burkina Faso, Chad, Sudan and the Democratic Republic of Congo. Upon returning from Africa, he studied Public Health at the Catholic University of Louvain, and in 1991 joined GSK Biologicals (then SmithKline Beecham Biologicals) as Clinical Project Manager. He was later appointed Director of Clinical Research and Development and Medical Affairs, North America, Anti-infectives/Biologicals. In 1996, Dr Meurice returned to Belgium to become Director of Project Management for Paediatric Vaccines and later, Group Director of Clinical Development for Adult Vaccines. In 2001, he was appointed as Vice President for Vaccines Clinical and Medical Affairs in Europe. Dr Meurice has authored or co-authored a number of papers in peer-reviewed journals, including a large-scale efficacy trial of vaccination against Lyme disease in the US, papers on hepatitis, rotavirus and varicella

vaccines, on booster formulation of a tetanus, diphtheria and pertussis (DTPa) vaccine, and comparisons of two hexavalent vaccines.

**Mr Jon Pearman, Director, GAVI Alliance, UK (Speaker)**

Jon Pearman joined GAVI as Head, Accelerated Vaccine Introduction (AVI) on December 1st 2008. Jon was previously senior marketing director at Berna Biotech (Crucell), covering Asia, Latin America and Africa. He led multidisciplinary development project teams responsible for penta, hepatitis B, yellow fever, typhoid, cholera and measles rubella vaccines, and was a member of the malaria vaccine and rabies monoclonal antibody early-stage development project teams.

Previously, Jon spent 10 years at GSK, including 6 years based in Nairobi covering the East Africa region, where he was responsible for commercialisation of GSK's portfolio of pharma and consumer products, including the polio, meningitis, typhoid, penta and tetra vaccines. In Kenya, he initiated social mobilization campaigns for polio national immunization days, and a hepatitis B full-media public awareness campaign which earned a Pearl Award for communication.

Jon has an Msc from Durham University, in molecular biology and biochemistry and spent two years at Anderson Consulting (now Accenture) after completing his degree.

**Dr Michael Perdue, Biomedical Advanced Research and Development Authority, USA (Speaker)**

Dr Michael Perdue joined the HHS' Biomedical Advanced Research and Development Agency (BARDA) in 2007 as Deputy Director for the Influenza and Emerging Diseases Division and became Director in March 2009. Working earlier with the US Department of Agriculture on avian influenza viruses, he published scores of articles on various aspects of avian influenza virus molecular biology, molecular epidemiology and vaccine development, including the H5N1 viruses. In September of 2004 Dr Perdue joined the US Centers for Disease Control and Prevention in Atlanta and was seconded to the World Health Organization Headquarters in Geneva, Switzerland. Among other international liaison duties there he served as Team Leader for Avian Influenza at the Human/animal Interface, closely following the spread and characteristics of the diseases caused by the H5N1 viruses. In January of 2006 he served as 'Event Manager' for the WHO headquarters response to the human infections with H5N1 in Turkey and was a WHO spokesperson for avian influenza issues. As Deputy Director for BARDA's Influenza and Emerging Diseases Division, he was a Project Officer on cell culture based influenza vaccine development contracts. As Director now he oversees the activities of a staff of 38 with more than 40 active federal contracts and grants.

**Dr Mair Powell, Medicines and Healthcare Products Regulatory Agency, UK (Speaker)**

Mair Powell trained in London and after several posts in various medical specialties took up clinical microbiology in which she held an academic post at London University for 6 years. She then worked in the Pharmaceutical Industry for 5 years, based in the US but running studies with vaccines and anti-infectives world wide (including US and Canada). She has worked in drug regulation (handling vaccines and anti-infectives) for 15 years and is the main author of several of the EU guidelines on clinical development as well as assisting WHO in drafting the clinical sections of their vaccine guidelines. She is a member of the EMA/CHMP Vaccine Working Party and Chair of the Infectious Disease Working Party.

**Professor David Salisbury CB, Department of Health, UK (Speaker and Chair)**

Professor David Salisbury is Director of Immunisation at the Department of Health, London, responsible for the national immunisation programme.

Professor Salisbury graduated from London University in 1969. He trained as a paediatrician at Oxford and at the Hospital for Sick Children, Great Ormond Street, London. He is a Fellow of the Royal College of Physicians, Fellow of the Royal College of Paediatrics and Child Health, and a Fellow of the Faculty of Public Health. He has an honorary Chair at Imperial College, London. Professor Salisbury was made a Companion of the Order of the Bath in the Queen's 2001 Birthday Honours.

In addition to his UK responsibilities, Professor Salisbury works extensively for the WHO on the Global Programme for Vaccines. He was the Chairman of the WHO Strategic Advisory Group of Experts on Vaccines from 2005 to 2010, is Chairman of the European Region Certification Commission for Poliomyelitis Eradication, and is a member of the Eastern Mediterranean Polio Elimination Certification Commission, and the South East Asian Polio Elimination Certification Commission. During 2009, Professor Salisbury chaired the WHO H1N1 vaccine working group. He is Co-chairman of the Influenza Pandemic Preparedness Group for the Global Health Security Action Group of G7 countries. He is an adjunct member of the Global Advisory Committee on Vaccine Safety and is a Liaison Member of the US Advisory Committee on Immunisation Practices and the US National Vaccine Advisory Committee. He also chairs the European Vaccine Advisory Group for the European Centre for Disease Control and is a member of the Policy and Practice Committee of the Global Alliance for Vaccines and Immunization.

Professor Salisbury has written around 80 publications on immunisation and paediatric topics.

**Dr Mike Witty, GALVmed, UK (Speaker)**

Dr Michael Witty retired from Pfizer Animal Health in 2008 after 29 years and is now is a part-time scientific consultant in both human and animal tropical disease research. He trained as an organic chemist at Oxford University and is a Fellow of the Royal Society of Chemistry. A former Vice President at Pfizer he worked in most therapeutic areas of livestock and companion animal research and he has a strong understanding of both pharmaceutical and biological discovery and development processes. He headed the UK Veterinary Medicine Discovery group, which has a particular focus and expertise in Parasitology. Later he moved to a more strategic Divisional HQ role responsible for Portfolio and Strategic Planning. He was a participant in the Interagency Group for the Co-ordination of Livestock Research for Poor People from its first meeting. He has been a GALVmed Board Member from its inception and he took over as Chairman of GALVmed in July 2006. He now spends his time supporting various, mainly not-for-profit, organisations involved in tropical disease research. He is a member of the Scientific Advisory Committees of MMV (Medicines for Malaria Venture) and WHO-TDR and provides consultancy to Wellcome Trust and Gates Foundation projects.