INAUGURAL BactiVac ANNUAL NETWORK MEETING
26 & 27 FEBRUARY 2018

SPEAKER PROFILES

Dr Martin Broadstock
Programme Manager for Immunology, Medical Research Council

Martin joined the MRC as the programme manager for Immunology in Jan 2017; his patch includes immunology, vaccines, the host-response to pathogens and autoimmunity. Martin has been heavily involved in launching the five MRC/BBSRC funded Networks for Vaccine R&D together with MRCs involvement in the UK Vaccine Network. Prior to joining the MRC, Martin was a senior research fellow at King’s College London, researching novel therapies for the treatment of dementia and Parkinson’s disease. Martin gained his PhD in pharmacology from King’s College London in 2006.

Dr Roma Chilengi
Chief Scientific Officer, Centre for Infectious Disease Research in Zambia

I lead enteric disease and vaccine research at the Centre for Infectious Disease Research in Zambia. My research initially was focused on rotavirus immunology and vaccinology and has in recent years expanded to broader enteric pathogens. Our group has extensive expertise in implementing clinical trials in general and undertaking focused research to address specific hypotheses on mechanisms of action, efficacy or effectiveness of vaccines. Lately, we are also working on setting up what we hope to be the first Challenge Human Infection Model site for enteric in Africa. I am a qualified medical doctor with 17 years of clinical research experience. I graduated from the University of Zambia with a bachelor’s degree in Human Biology, and a Medical degree. I obtained a post graduate diploma in Hygiene and Tropical Medicine, and a master’s degree in Epidemiology from London University. I also undertook a formal Fellowship training program on Clinical Research and Vaccine Development at GlaxoSmithKline Biological ins Rixensart, Belgium, and I am a certified Clinical Research Associate by the Association of Clinical Research Professionals (ACRP-USA). As such I consider myself a clinical research scientist with vast experience in vaccine research.

Professor Dani Cohen
Professor of Epidemiology and Preventive Medicine, Tel Aviv University

Professor Daniel (Dani) Cohen joined Tel Aviv University (TAU) for a full-time academic position in 2002 and has been a full Professor since 2007. Previously, he served in the Israel Defense Forces for many years and was the Director of the Infectious Diseases Research Institute in the Medical Corps. Prof. Cohen was appointed Head of Tel Aviv University School of Public Health in 2011. Prof. Cohen founded the Tiberio Swartz Forum on Epidemiology of Infectious Diseases and Biosecurity, a very active national and international stage for scientific communications and discussions in the field of infectious diseases and vaccines. He is the co-founder and co-director of the Summer International Institute of Advanced Epidemiology and Preventive Medicine at TAU School of Public Health. He also serves as an executive board member of the Middle East Consortium for Infectious Diseases Surveillance and also acts on various national and international advisory boards in the field of infectious diseases and vaccines. He has also been a consultant for the World Health Organization on several occasions. Prof. Cohen has supervised many graduate and post-graduate students. He has received several awards for his outstanding contribution to research and is the author of more than 200 peer-reviewed articles.
Professor Adam Cunningham
Co-director of BactiVac, Professor of Functional Immunity

Professor Adam Cunningham gained his PhD from Southampton University for studies on antibody responses to Chlamydia pneumoniae. After a short-term position in The Gambia, funded by the WHO, he had his first post-doctoral position in Birmingham studying the cell wall of Mycobacterium tuberculosis. From here, he started work in Prof. Ian MacLennan’s group examining how antibody responses develop and are regulated. During this time, he incorporated the use of Salmonella and its component antigens into this work, leading to an independent position as a RCUK Roberts Academic Fellow, studying how immune responses develop to pathogens and vaccines. He was made Professor of Functional Immunity in August 2011 and his research is focused on how adaptive immunity to pathogens and their component antigens are induced, maintained and function. These studies help us understand why some responses are protective, whilst others are not or can even be harmful.

Professor Ian Feavers
Head of Bacteriology, National Institute for Biological Standards and Control (NIBSC)

Ian is Head of the Division of Bacteriology at the NIBSC, which is the part of the MHRA responsible for the control and standardisation of biological medicines such as vaccines and blood products. He studied for his PhD at the University of Newcastle upon Tyne, eventually moving to NIBSC after periods of postdoctoral research at the University of Sheffield and the Friedrich Miescher Institut in Basel. During the late 1990s, when new conjugate vaccines were being introduced, he headed the laboratory responsible for the control and standardisation of meningococcal and pneumococcal vaccines. His research at NIBSC has focused on the antigenic diversity and population biology of the meningococcus. He was one of the collaborators involved with the development of the MLST approach to bacterial genotyping and continues to oversee research on the molecular genetics and immunology of meningococcal antigens. Because of his broad experience of bacterial vaccines and molecular biology, he has been closely involved with a number of meningococcal vaccine developments. He regularly contributes to WHO and EU guidelines, serves as NIBSC’s representative on the Vaccine Working Party of the EMA, and represents NIBSC as an observer at JCVI.
Dr Birgitte Giersing  
Technical Officer, Department of Immunizations, World Health Organisation

Birgitte Giersing is a technical officer in research and product development, within the Initiative for Vaccine Research (IVR) in the Department of Immunizations, Vaccines and Biologics (IVB), WHO. She has a PhD in Biochemistry and performed her post-doctoral studies at the National Institutes of Health, Maryland USA in malaria vaccine development. Following this, Birgitte joined the Malaria Vaccine Initiative, a program of the non-profit organization PATH in Washington DC, where she oversaw the development and evaluation of several preclinical and early stage malaria vaccine candidates. From PATH, she moved to Emergent Biosolutions UK where she was responsible for development of their MVA viral vector delivery platform, as well as their meningitis B, influenza and TB candidate vaccine programmes. She was also the head of project management for Emergent’s European portfolio. Prior to joining the WHO, Birgitte managed the global program team for the Noravirus vaccine programme at Takeda Vaccines. Birgitte has been with the WHO for 3 years and is the secretariat for IVB’s Product Development Vaccine Advisory Committee (PDVAC) www.who.int/immunization/research/committees/pdvac/en/. PDVAC provides strategic advice and recommendations to WHO related to vaccines at the Phase 2 stage of clinical evaluation, or earlier. Birgitte is the IVR focal point for pipeline vaccines of enteric and sexually transmitted infections, as well as innovative delivery technologies and total systems effectiveness (TSE). She is also the co-chair of the Immunization Practices Advisory Committee’s working group on novel delivery technologies.

Professor Ian Henderson  
Director of the Institute of Microbiology and Infection, University of Birmingham

Professor Henderson began his academic studies reading an Honours degree in Microbiology at University College Dublin. After University he worked as a research assistant position studying HIV at the Wellcome Laboratories. He then returned to study for a PhD in molecular bacteriology at Trinity College Dublin. The success of his PhD led to a productive postdoctoral position at the Centre for Vaccine Development, University of Maryland, USA working with Professor James Nataro. After his postdoctoral studies, he took up a faculty position in Queens University Belfast before rapidly transitioning to the University of Birmingham. At Birmingham he established a group investigating bacterial cell envelope biology and genomics and developed an expansive network of University-wide collaborations. Professor Henderson has been involved with the Microbiology Society for over 15 years. He previously served as chair of the Prokaryotic Division and as an elected member of council. He is currently Director of the Institute of Microbiology and Infection in the College of Medical and Dental Sciences and Deputy Chair of BBSRC committee B.
Professor Constantino López-Macías  
Professor of Immunology, Mexican Social Security Institute / University of Oxford  

Professor López-Macías is an Immunologist from the Mexican Social Security Institute and also a Visiting Professor of Immunology at University of Oxford. His research is focused in the study of the mechanisms involved in the generation of long-lasting immunity and the application of this knowledge in the development of new adjuvants and vaccines. He has experience in the development of adjuvant platforms using plant viruses and bacterial proteins and the transfer of these technologies to industry. In addition, he has been involved in the development from the bench to the clinical trials of vaccines against influenza for human and veterinary use and experimental vaccines against typhoid, paratyphoid and non-typhoidal salmonellosis using Salmonella porins.

www.researchgate.net/profile/Lopez_Macias_Constantino  
www.cienciaimss.org/author/constantinolopez/

Professor Calman MacLennan  
Director of BactiVac, Professor of Vaccine Immunology

I am a clinician scientist from the University of Oxford and currently a Senior Program Officer with responsibility for bacterial vaccines in the Enteric And Diarrheal Diseases at the Bill and Melinda Gates Foundation. After qualifying in medicine from Oxford, I studied for a doctorate in neurosciences before developing an interest in infectious disease immunology. This led to time overseas in Kenya and then Malawi investigating immunity to invasive Salmonella disease. From 2010 to 2014, I was Head of the Exploratory Programme at the Novartis Vaccines Institute for Global Health, in Siena, Italy. There my programme developed new vaccines against Salmonella, Shigella and meningococcus, and contributed to the establishment of a new bacterial vesicle vaccine platform, known as Generalized Modules for Membrane Antigens. Following a sabbatical at the Wellcome Trust Sanger Institute, I returned to Oxford in 2015, where I am as a MRC Senior Clinical Fellow at the Jenner Institute. Salmonella immunology continues to be a main focus of my research with ongoing projects in Africa, and my group is currently engaged in developing a vaccine against gonorrhoea. I am an honorary consultant immunologist at Oxford University Hospitals NHS Foundation Trust, a member of visiting faculty at the Sanger Institute and Professor of Vaccine Immunology at the University of Birmingham. My role at Birmingham increased in August 2017 with the launch of the MRC GCRF BactiVac network. I see bacterial vaccines as having huge potential for global health benefit and am excited about the opportunities that BactiVac has to advance this area of vaccinology.
Francesca Micoli graduated from the University of Florence in 2003, with a thesis in industrial organic chemistry, supervised by Prof. Piero Frediani. She was awarded her PhD in Florence in 2006 on “Catalytic activity of mononuclear Ruthenium complexes containing different phosphinic ligands”, supervised by Prof. Antonella Salvini. After a short stay at Boehringer-Ingelheim C.R.C, on the development of new drugs in the areas of Neurodegenerative diseases, she moved to Novartis Vaccines and Diagnostics, working on synthesis, purification and characterization of glycoconjugate vaccines, under the supervision of Dr. Paolo Costantino. In 2007 she moved to Novartis Vaccines Institute for Global Health, now GSK Vaccines Institute for Global Health (GVGH), focusing her research on the development of effective and affordable vaccines for neglected diseases in impoverished communities. She has been involved in the development of vaccines against Salmonella Typhi, Salmonella Paratyphi A, non-typhoidal Salmonella, Shigella and Neisseria meningitidis. Actually she is Technology Platform Head at GVGH, working on two main technology platforms, glycoconjugation and Generalised Modules for Membrane Antigens (GMMA). Her research aims to evaluate how vaccine design can impact the immune response, supporting rational design of improved vaccines. She has many collaborations in place with academic and industrial partners.

Kate O’Brien is Professor of International Health and Epidemiology at the Johns Hopkins Bloomberg School of Public Health. Trained as a pediatric infectious disease physician, epidemiologist and vaccinologist she completed her training at the US Centers for Disease Control as an Epidemic Intelligence Officer, in the Respiratory Diseases Branch. At JHSPH she has served as the Director of Infectious Disease for the Center for American Indian Health, a board member of the Johns Hopkins Vaccine Initiative, and a founding partner and now the Executive Director of the International Vaccine Access Center. Her scientific work has focused on vaccine preventable illnesses, among both children and adults, including pregnant women. The work has included surveillance, epidemiology, and large-scale vaccine clinical trials of products against pneumococcal disease; Haemophilus influenzae type b; respiratory syncytial virus; influenza; and rotavirus. She has worked in partnership with American Indian populations, and in Africa and Asia to develop rigorous scientific evidence to inform vaccine policy, and accelerate access to life-saving vaccines for children living in low resource countries and settings. She serves as a member of the World Health Organization Strategic Advisory Group of Experts (SAGE) on Immunization, which develops global policy on vaccines and immunizations.
Dr Mariagrazia Pizza  
Senior Scientific Director Bacterial Vaccines, GSK Vaccines

Mariagrazia has worked as scientist and project leader on different bacterial vaccine projects. She has contributed to the design and development of nontoxic derivatives of pertussis toxin, E.coli heat-labile toxin and cholera toxin, by genetic engineering. The research on pertussis led to the discovery of a genetically detoxified pertussis toxin, devoid of toxicity but highly immunogenic, which has been the basis of a new vaccine against pertussis, licensed for immunization in infants. The new genetically detoxified derivatives of heat labile E. coli toxin (LT) and cholera toxin were shown to be powerful vaccine antigens and adjuvants. More recently, she has contributed to the discovery and licensure of a vaccine against Neisseria meningitidis Serogroup B, based on the innovative approach of “reverse vaccinology”. The new MenB vaccine has recently been licensed for use in adolescents and infants in 38 countries worldwide. During her career she has received many scientific awards, is member of EMBO, of the European Academy of Microbiology, Fellow of the American Academy of Microbiology and Vice President of IUMS. She is co-author of over 180 publications in international peer-reviewed journals, and many patents.

Professor Andrew Pollard  
Professor of Paediatric Infection and Immunity, University of Oxford

Andrew is Professor of Paediatric Infection and Immunity at the University of Oxford (in post since 2001). His research includes the design, development and clinical evaluation of vaccines including those for meningococcal disease and enteric fever and leads studies using a human challenge model of (para)typhoid. He runs surveillance for invasive bacterial diseases and studies the impact of pneumococcal vaccines in children in Nepal and leads a project on burden and transmission of typhoid and co-leads typhoid vaccine impact studies at these sites. He has supervised 23 PhD students and his publications include over 400 manuscripts and books on various topics in paediatrics and infectious diseases. He chairs the UK Department of Health’s Joint Committee on Vaccination and Immunisation and the European Medicines Agency scientific advisory group on vaccines and is a member of WHO’s SAGE. He received the Bill Marshall award of the European Society for Paediatric Infectious Disease (ESPID) in 2013 and the ESPID Distinguished Award for Education & Communication in 2015. He was elected to the Academy of Medical Sciences in 2016.
Dr Duncan Steele  
**Deputy Director & Strategic Lead for Enteric Vaccines, Global Health, Bill & Melinda Gates Foundation**

As deputy director and strategic lead for enteric vaccines in the Enteric and Diarrheal Diseases team, he is responsible for an integrated portfolio of vaccine research and development and implementation strategies for the control of diarrhoea and enteric fever in vulnerable populations. He coordinates teams across Vaccine Development and Vaccine Delivery for improved and new vaccines against rotavirus, cholera, typhoid fever, enterotoxigenic E. coli (ETEC) and Shigella. Previously, Duncan was at PATH, a global health non-profit organization, where he worked across multiple diarrhoea vaccine-related programs, including the Rotavirus Vaccine Program focused on clinical trials in Africa and Asia; and in vaccine development for new alternative rotavirus vaccines and vaccines against ETEC and Shigella. Before that, in the Initiative for Vaccine Research, Department of Immunization, Vaccines and Biologicals, WHO, Duncan was responsible for the diarrheal disease portfolio, where he coordinated a global strategic agenda for vaccine research for the major diarrhoeal and enteric diseases. Duncan is a South African trained microbiologist with extensive experience in virology and microbiology, especially for diarrheal diseases, and has mentored students and postgraduates across the African continent. He has authored more than 290 scientific publications on diarrheal diseases, epidemiology, clinical research and vaccine development.

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Dr Seanette Wilson  
**Science & Innovation Group Leader: Planning and Implementation, The Biovac Institute**

Dr Wilson obtained her PhD in synthetic organic chemistry at the University of Cape Town before starting at The Biovac Institute as a Senior Product Development Scientist. Biovac is a vaccine manufacturing and distribution company based in Cape Town, South Africa. Dr Wilson was responsible for the development of purification and conjugation processes for a Haemophilus influenza type b (Hib) conjugate vaccine. She became the Principal Investigator of successful pneumococcal conjugate vaccine development project funded by PATH and in collaboration with Chendu Institute of Biological Products, based in China. Currently Dr Wilson is responsible for Planning & Implementation within Science & Innovation as well as being the Project Lead for the development of a multivalent Group b Streptococcus conjugate vaccine, a project funded by PATH up to first-in-human clinical trials.
MRC/BBSRC GCRF Networks in Vaccine Research & Development

Professor Peter Openshaw, HIC-Vac Network Director

The Human Challenge Model (Hic-Vac) Network based at Imperial College London aims to support, develop and advocate for human infection challenge studies (HIC) to accelerate the development of vaccines against pathogens of high global impact. This Network will enable open sharing of knowledge and expertise, using Network resources to increase HIC use in the UK and LMICs, disseminating best practice, enhancing training and fostering new collaborative studies relevant to high-impact pathogens.

Professor Beate Kampmann, IMPRINT Network Director

Immunising pregnant women and infants (IMPRINT) Network based at Imperial College London aims to build a sustainable Network of stakeholders from basic science, immunology, vaccinology, social sciences, industry, public health, national and international policy makers, to increase protection from infection in neonates via the safe and effective use of vaccines in pregnancy and in newborns. The Network will nurture discovery and implementation science in close collaboration with sites and investigators in LMICs, including via an IMPRINT fellowship scheme.

Professor Helen Fletcher, VALIDATE Co-Director

The VALIDATE Network based at the University of Oxford aims to promote vaccine R&D for complex intracellular pathogens that cause significant disease burden in LMICs. The initial focus is on Mycobacterium tuberculosis (which causes TB), Leishmania species (leishmaniasis), Burkholderia pseudomallei (melioidosis) and Mycobacterium leprae (leprosy). The Network is creating an engaged and interactive community of researchers who are forming new cross-pathogen, cross-continent, cross-species and cross-discipline collaborations, generating new ideas, taking advantage of synergies and quickly disseminating lessons learned across the Network, with the aim of together making significant progress towards vaccines against the focus pathogens. Key interests are in-vivo research, cross-pathogen studies, projects promoting the One Health agenda, and collaborative projects involving LMICs and Early Career researchers.

Dr Tim Connelley, IntVetVacc Network Director

The International Veterinary Vaccinology (IVVN) Network, based at the Roslin Institute, University of Edinburgh, is a multidisciplinary community passionate about developing vaccines to improve animal and human health. The Network will facilitate the formation of international collaborations to improve vaccine design and development for livestock and zoonotic diseases in low-and-middle income countries (LMICs). Furthermore, the International Veterinary Vaccinology Network will bring together researchers from across the fields of veterinary and human vaccinology, irrespective of pathogen or species of interest, with the aim of addressing key bottlenecks that are preventing vaccine development for important pathogens of livestock in LMICs.