

In 2020, we launched our first ever series of virtual meningitis webinars, with great success. We are therefore delighted that in 2022 our virtual event will be returning, with a new name the 'Meningitis spotlight session'. This virtual event is completely free, and we welcome participants from all over the world to join us, and pose questions to our eminent speakers.

## Format and timing

- **Date:** November 16<sup>th</sup>, 13:30-17.00 GMT
- **Format:** Virtual (Zoom Webinars) advanced features of zoom will be used to enable attendees to submit questions which will be collated by MRF staff for the session Chair
- The chair poses a key question, and then introduces speakers who have 10-20 minutes to present information to answer the question. After all speakers in a session have presented, there will be a group discussion and Q&A session, moderated by the session Chair.

## Final Agenda

13:30-13.35 Welcome and introduction -Vinny Smith, MRF and CoMO

13.35-13.45 Patient experience of meningitis - Nicole Zographou

# <u>Session 1: Meningitis in the UK: what do we know now and what tools do we need? Chair - Prof Ray Borrow, UK Health Security Agency (UK HSA)</u>

During COVID-19 lockdowns, the UK experienced a reduction in confirmed cases of bacterial meningitis. How has the situation changed since the lifting of all remaining UK restrictions in February 2022? What tools are available to help us defeat meningitis and how can we best use them?

- 13.45-14.00 Invasive meningococcal disease in England after the cessation of COVID control measures—Dr Helen Campbell, UK Health Security Agency (UK-HSA)
- 14:00-14.15 Decoding outbreaks using genomics: real world examples Dr Jay Lucidarme, UK-HSA
- 14.15-14.30 4CMenB for teenagers a meningitis vaccine that prevents gonorrhoea or a gonorrhoea vaccine that prevents meningitis? Dr Hannah Christensen, University of Bristol
- 14.30-14.45 Recommended changes to UK immunisation schedule: results from modelling studies
  Lauren Adams, University of Cambridge
- 14.45-15.00 Pneumococcal meningitis in the UK in the post COVID era -Dr Shamez Ladhani, UK-HSA
- 15.00-15.15-Q&A and discussion

#### 15.15-15.25 - BREAK

## Session 2: Why is the global prevention of bacterial meningitis a priority and what progress has been made? Chair - Prof Caroline Trotter, University of Cambridge

The WHO Global Roadmap to Defeat Meningitis by 2030 sets out a comprehensive vision 'Towards a world free of meningitis,' with the prevention and epidemic control of meningitis being a key strategic pillar. Recommended vaccination programmes against some causes of bacterial meningitis have not yet been



introduced in many countries, leaving their citizens at risk. Where vaccines are available, global vaccination rates have continued to decline, with 25 million children missing out on lifesaving vaccines in 2021, 6 million more than in 2019. Meanwhile other important causes of meningitis, such as GBS, are not yet vaccine preventable. There are also important gaps in our knowledge of the burden of meningitis. How should available vaccines best be used to achieve high coverage, and how will vaccines still under development be progressed to their licensure and introduction?

- 15.25-15.40 Uncovering the hidden burden of meningitis mortality in the under 5's **Dr Sana Mahtab, University of the Witwatersrand, Johannesburg**
- 15.40-16.00 Global strategies for prevention of pneumococcal meningitis Prof Kim Mulholland, Murdoch Children's Research Institute, Melbourne and the London School of Hygiene and Tropical Medicine, London
- 16.00-16.20 The potential for broadening protection with MenB and multicomponent meningococcal vaccines – Dr Giorgia Sulis, McGill University, Canada
- 16.20-16.35 Overcoming barriers to maternal GBS vaccination **Prof Kirsty Le Doare, St George's University of London**
- 16.35-16.45 Development of a HiA vaccine Dr Andrew Cox, National Research Council Canada
- 16.45-17.00 Q&A and discussion

## 17.00 Close - Prof Caroline Trotter, University of Cambridge

## **Speaker and Chair biographies:**



13:30-13.35: Vinny Smith - Chief Executive of the Meningitis Research Foundation Vinny is the Chief Executive of the Meningitis Research Foundation (MRF) and Confederation of Meningitis Organisations (CoMO), with 20 years of experience enabling transformation of organisations and sectors. In the past 7 years, Vinny has helped establish the world's first World Health Organization (WHO) global roadmap for meningitis, the Global Meningitis Genome Partnership, and the Meningitis Progress Tracker,

bringing together the world's best data on bacterial meningitis into one place for the first time, and he merged MRF and CoMO to establish the world's leading combined meningitis charity and patient voice network. He is a former steering committee member of the Global Meningococcal Initiative, a Business Fellow and guest lecturer at the University of the West of England, and a Fellow of the Royal Society of Arts and Manufacturers. He currently represents MRF and CoMO as a member of the WHO Technical Task Force working to defeat meningitis by 2030. Before entering the meningitis field, Vinny led teams committed to open and transparent availability of international data on financing for development through the International Aid Transparency Initiative and Global Humanitarian Assistance programmes, including establishing new teams in Kenya and Uganda; led the operational and training implementation of a multi-agency domestic abuse intervention model in the UK; restructured the fundraising division of Europe's largest voluntary income charity; and provided consultancy for strategic and operational



reorientation of an African economic think tank and strategy development for a US-based global development partnership.



13.35-13.45 Patient experience of meningitis - Nicole Zographou

I'm Nicole Zographou, sister of George Zographou. I am 34 years old and living in Bristol. I am currently a Health Protection Practioner for UKHSA I am also an advocate and fundraiser for the Meningitis Research Foundation.

On 16th August 2017, my only sibling aged only 18 died from meningococcal septicaemia whilst he was at a festival. He was in the process of completing his A-levels. I could not possibly put in to words how deeply it has affected our family and friends. It has devastated our lives. I am passionate about the

wider implementation of the MenB vaccine to prevent anyone else going through this torture. As a family, we will continue to tell our story and keep the pressure on!



Session 1 Chair: Prof Ray Borrow is a HCPC registered Consultant Clinical Scientist who is Head of the Vaccine Evaluation Unit and Deputy Head of the Meningococcal Reference Unit at UK Health Security Agency, Manchester, UK, where he is responsible for the evaluation of serological responses to various bacterial and viral vaccines. He has performed numerous research projects and clinical trials as researcher, principal investigator and chief investigator. He has authored over 450 peer reviewed scientific publications. He is Professor of Vaccine Preventable Diseases at the University of Manchester, Visiting Professor at the Manchester Metropolitan University and Honorary

fellow in the Department of Clinical Infection, University of Liverpool. Until recently he served as a member of the DoH Joint Committee of Vaccination and Immunisation (JCVI) and continues as an invited expert. He is a member of the SAGE meningococcal working group and an ad hoc advisor to WHO and PATH on both meningococcal and pneumococcal vaccines. He is a trustee of the charity the Meningitis Research Foundation.



13.45-14.00: Dr Helen Campbell - I am a Senior Clinical Scientist who joined Public Health England (now UKHSA) in 2001 after working as a Senior Scientist at the Department of Health and as consultant research manager for Health Promotion England. I am the scientific lead on national epidemiology of pertussis and invasive meningococcal disease, additionally leading on UKHSA co-ordinated surveillance of inadvertent vaccination of pregnant women and working on vaccination of pregnant women more generally, including COVID-19 and pertussis vaccines. I provide scientific support for some rare conditions like subacute sclerosing panencephalitis and congenital rubella syndrome alongside input into national surveys of attitudes to immunisation. The development of parental resources and health

professional training materials together with teaching on public health courses are also important areas of my work.





14:00 – 14:15: Dr Jay Lucidarme is a Senior Scientist based at the UK Health Security Agency Meningococcal Reference Unit in Manchester. He obtained his degree in Microbiology at the University of Sheffield before going on to complete a Masters in Medical and Molecular Microbiology at the University of Manchester. He joined the UKHSA Vaccine Evaluation Unit in 2007 where he undertook a PhD in Genomic Epidemiology assessing the potential coverage of the meningococcal B vaccine, Bexsero, in England, Wales and Northern Ireland. He has since contributed to various projects including the Meningitis Research Foundation Meningococcus Genome Library, and

investigations into the vaccine candidacy of meningococcal haemoglobin receptors, the population biology of serogroup W meningococci, and the in vivo microevolution of meningococci during progression from being a harmless commensal to an invasive pathogen. He currently contributes to the enhanced surveillance of invasive meningococcal disease in England, Wales and Northern Ireland following the introduction of meningococcal B and meningococcal ACWY vaccines into the routine vaccine schedule.



14:15 – 14:30: Dr Hannah Christensen is a lecturer in infectious disease mathematical modelling at the University of Bristol, UK. Her research focuses on using models to predict the potential impact of interventions (particularly vaccination) on infectious diseases. Hannah was recently responsible for developing models of meningococcal disease and vaccination used by policy makers in the UK and several countries in Europe to inform their decisions about the use of Bexsero and MenACWY vaccines against meningococcal disease. She is currently undertaking research to better understand how public preferences about vaccines and their benefits

can be included in the tools used by decision makers.



14:30 – 14:45: Lauren Adams - I completed an integrated masters in mathematics at Keele university in 2019, graduating with a first class honours. After graduating I worked as a laboratory assistant in a microbiology department which initiated an interest in mathematical modelling of infectious diseases. I then did a masters in Public Health at Warwick University where I worked on a project looking into the future of Influenza dynamics following the Covid-19 Pandemic. I began my PhD at Cambridge University in October 2021 and have been enjoying working more independently.





14:45 – 15:00: Dr Shamez Ladhani is a paediatric infectious diseases specialist at St. George's Hospital, a reader in paediatric infectious diseases at St. George's University of London and consultant epidemiologist at UK Health Security Agency (UKHSA), where he is the clinical lead for a number of national vaccine preventable infections, including Haemophilus influenzae, Streptococcus pneumoniae and Neisseria meningitidis, which are all major causes of childhood bacterial meningitis.

He completed his medical training at Guy's and St. Thomas's Hospitals, London, and then worked in a children's hospital in rural Kenya. Upon returning to London, he obtained his PhD in genetic epidemiology and vaccine failure in children and completed his specialist paediatric infectious diseases training at St. George's and Great Ormond Street Hospitals, London.



Session 2 Chair: Prof Caroline Trotter - is an infectious disease epidemiologist with a particular interest in vaccine evaluation. She is Professor of Global Health at the University of Cambridge, Director of the Vaccine Impact Modelling Consortium at Imperial College, and honorary epidemiologist at the UK Health Security Agency. A key focus of her research is on bacterial meningitis, and in particular meningococcal disease. She uses a variety of methods, including observational studies, mathematical modelling and cost-effectiveness analyses and enjoys addressing questions of direct relevance to vaccine and public health policy. She currently serves as the Chair of the Meningitis Research Foundation's Scientific Advisory Panel.



15.25-15.40: Dr Sana Mahtab is a senior program manager the Vaccines and Infectious Diseases Analytics (VIDA) Research Unit of the University of the Witwatersrand and Lead for South Africa Child Health and Mortality Prevention Surveillance. She holds a PhD in Paediatrics from University of Cape Town, Maters in Public Health (Epidemiology) from University of Cape Town and Bachelor of Medicine and Surgery (MBBS) from University of Karachi. She is a researcher with over 15 years' experience in public health and infectious disease research and has extensive experience in leading infectious disease research and surveillance systems at local and national level.



15:40 – 16:00: Prof Kim Mulholland is an Australian paediatrician, trained at Melbourne University and the Royal Children's Hospital, Melbourne. With post-graduate training in immunology, respiratory medicine and tropical medicine he joined the Medical Research Council Laboratories, Gambia in 1989, where he developed a program of research covering all aspects of the problem of childhood pneumonia. This included studies of the aetiology, clinical signs, and treatment of pneumonia cases, with particular reference to very young

infants and malnourished children. These studies helped to guide WHO policy in the field and contributed to the development of the strategy of Integrated Management of Childhood



Illness (IMCI), as well as guiding oxygen and antibiotic management for hospitalized children. In the Gambia he also worked on several projects relating indoor air pollution to pneumonia.

His Hib vaccine trials were the first to demonstrate the capacity of conjugate vaccines to prevent bacterial pneumonia, and paved the way for Hib vaccine introduction in Africa. After six years in the Gambia he joined WHO HQ where he oversaw the development of standardized methods for the evaluation of pneumonia vaccines in developing countries. At WHO he was also the focal point for air pollution in the Child and Adolescent Health Department and helped design the RESPIRE study. Since leaving WHO in 2000 he has continued to work in the pneumonia field with particular emphasis on vaccines. He was one of the founders of the Global Action Plan for Pneumonia, and one of the leaders of the successful Hib Initiative project that saw the introduction of Hib vaccines into the poorest countries of the world. During the same period he established leading pneumococcal microbiology and immunology laboratories at the Murdoch Childrens Research Institute (MCRI), Melbourne, along with major field research programs in Vietnam, Fiji and Mongolia. He is currently Co-Director of Global Health at MCRI. In Mongolia he works with NCCD undertaking surveillance of severe pneumonia in children in 4 districts of Ulaanbaatar. He also leads HPV research programs in Mongolia, Vietnam, Ethiopia and India. He has worked on RSV research projects for over 30 years and currently leads projects in Mongolia and Vietnam. He has led the typhoid research project in Fiji since 2012. He has been involved in the oversight of many vaccine trials, serving on steering committees or DSMBs for a range of vaccines including Pneumococcal, Dengue, RSV and Covid-19 vaccines. He is currently a member of the WHO Strategic Advisory Group of Experts (SAGE) on Immunization, and has served on Working Groups covering pneumococcal vaccines, measles & rubella, Covid-19 vaccines and Covid-19 vaccine safety.



16:00 – 16:20: Dr Giorgia Sulis is an infectious disease epidemiologist with clinical background and a strong interest in global health research. After receiving her medical degree (2011) and specializing in infectious and tropical diseases (2017) in Italy, she obtained a PhD in epidemiology from McGill University in 2021, followed by a postdoctoral research fellowship in the same university. Dr. Sulis will join the School of Epidemiology and Public Health of the University of Ottawa in January 2023 as Assistant Professor of infectious disease epidemiology. Her research program spans across various areas, including vaccines with a focus on vaccination policies and the impact of vaccines on clinical and public health outcomes.





16:20 - 16:35: Prof Kirsty Le Doare - I am a Professor of Vaccinology and Immunology and chief investigator for several Group B Streptococcal (GBS) maternal vaccines and seroepidemiology studies. My groups in Uganda and the UK use a variety of approaches to study GBS, ranging from clinical studies, whole genome sequencing, to complex immunology.



16:35 - 16:45: Dr Andrew Cox is a Principal Research Officer and Team Leader of the Glyco-Chemistry projects within the Human Health Therapeutics Research Centre of the National Research Council of Canada.

Dr. Cox obtained his PhD in Chemistry from Hull University in England and carried out post-doctoral studies at the University of Calgary prior to joining the NRC in Ottawa in 1994. His research interests are focused on the carbohydrate antigens that decorate the surfaces of Gram-negative and Grampositive bacteria and his research has developed an understanding of their structure, biosynthesis and expression in order to exploit this knowledge with

a view to developing vaccines based on these antigens. He has many years' experience in the design and chemistries of glycoconjugate vaccine production in order to provoke a protective response against the carbohydrate antigen via the immune system. He has published over 140 papers in peer-reviewed research journals.





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