

Wednesday 4th March

Time	Title	Speaker
9:30	Registration and coffee	
Session 1	Chair: Angela Brueggemann	
10:00-10:15	Welcome and introduction to the IDEU	Angela Brueggemann
10:15-10:35	<i>Neisseria meningitidis</i> carriage, antimicrobial resistance and risk factors in UK men who have sex with men	Odile Harrison
10:35-10:55	Linking UK Biobank to UKHSA data to find infection causes	Danny Wilson
10:55-11:15	The RECOVERY platform trial: present and future	Leon Peto
11:15-11:45	Tea, coffee, networking	
Session 2	Chair: Helen Fryer	
11:45-12:05	SchistoTrack: A prospective, community-based cohort focused on intestinal schistosomiasis in Uganda	Melissa Iacovidou and Phyllis Munyiva, on behalf of Goylette Chami
12:05-12:25	The unfinished business of the HIV pandemic	Joris Hemelaar
12:25-12:45	Developing and translating bioengineering technologies for better health	Molly Stevens
12:45-14:00	Lunch, networking	
Session 3	Chairs: Ana Unitt and Matt Quinn	
14:00-15:00	IDEU early- and mid-career researcher 5-minute talks	
	Towards scalable inference of ancestral recombination graphs for bacteria	Shing Zhan
	Longitudinal population dynamics of <i>Moraxella catarrhalis</i> in the nasopharynx during the first year of life	Iman Yassine
	Exploring phage diversity in <i>Haemophilus influenzae</i>	Saskia Proud
	Evidence of human-pathogen genetic interactions in <i>Staphylococcus aureus</i> bloodstream infections	Hugh White
	Q & A (10 minutes)	

Time	Title	Speaker
	IDEU early- and mid-career researcher 5-minute talks	
	Big data methods for identifying non-genetic risk factors for microbial disease	Helen Fryer
	The role of antibody and antigen status as biomarkers for the use of neutralising antibody therapies: analysis of 21,446 participants in the RECOVERY trial	Vanessa Tobert
	Adverse maternal outcomes in women living with HIV: a systematic review and meta-analysis	Alyssa Fitzpatrick
	Global and regional molecular epidemiology of HIV-1 during 1990-2024	Ayisha Khalid
	Q & A (10 minutes)	
15:00-15:30	Tea, coffee, networking	
Session 4	Chair: Prabhat Jha	
15:30-15:50	Mathematical modelling at the end of an infectious disease outbreak	Robin Thompson
15:50-16:10	The link's the sink! Sinks and Gram-negative pathogens in healthcare settings	Nicole Stoesser
16:10-16:30	Advances in vaccines and antibodies for blood-stage malaria	Simon Draper
16:30-16:50	Health research partnerships in a fragmenting world order	Caeser Atuire
17:00-19:00	Drinks reception in the Richard Doll Building	

Thursday 5th March

Time	Title	Speaker
9:30	Registration and coffee	
Session 5	Chair: Helen Fryer	
10:00-10:20	Responding to African HIV epidemics among sexual and gender minorities: live and let DEI?	Adrian Smith
10:20-10:40	The IRIS Consortium reveals significant changes in invasive bacterial disease as a result of the COVID-19 pandemic	Angela Brueggemann
10:40-11:00	How (and how not) to build a collaborative global health research network: the Global Health Bioethics Network as an illustration	Mike Parker
11:00-11:30	Tea, coffee, networking	

Time	Title	Speaker
Session 6	Chairs: Iman Yassine and Melissa Iacovidou	
11:30-12:35	IDEU early- and mid-career researcher 5-minute talks	
	A core genome approach to exploring antimicrobial resistance in <i>Neisseria gonorrhoeae</i>	Ana Unitt
	Predicting azithromycin resistance in <i>Neisseria gonorrhoeae</i> using machine learning	Krisna Made
	Assessing the impact of the UK RSV vaccination programme on antibiotic usage and antimicrobial resistance	Matt Quinn
	Assessment of the feasibility of a One Health surveillance system	Priya Lall
	Q & A (10 minutes)	
	Referrals in the absence of clinical management guidance: navigating continuity of care for participants in a longitudinal study on chronic schistosomiasis infection in rural Uganda	Sandrena Frischer
	Malaria- <i>Schistosoma mansoni</i> co-infection in Ugandan fishing communities	Max Lang
	Clinical decision support systems for periportal fibrosis staging	Eloise Ockenden
	Last observations of inpatient physiology data are more effective than time series in mortality prediction	Zizheng Zhang
	Harm from bloodstream infections in acute and emergency care	Kieran Johnstone
	Q & A (10 minutes)	
12:35-13:35	Lunch, networking	
Session 7	Chairs: Adrian Smith and Leon Peto	
13:35-13:55	The Pathogen Project at the Ellison Institute of Technology	Gil McVean
13:55-14:15	Human challenge studies to accelerate gonorrhoea vaccine development	Susanne Hodgson
14:15-15:15	Panel discussion Open data in the age of digital epidemiology: benefits, risks, and responsibilities. <i>Should open data be the default in infectious disease research? The panel members and audience will discuss the opportunities and challenges associated with open data.</i>	Gil McVean Ben Lacey Odile Harrison Joris Hemelaar Angeliki Kerasidou
Session 8	Chair: Angela Brueggemann	
15:20-15:40	MicrobesNG: To long-read or not to long-read? ONT long-read technology outperforms Illumina short-read sequencing for plasmid de novo assembly and AMR gene detection	Helen McNeil
15:40-16:00	Closing remarks	Angela Brueggemann

Biographies:



Professor Prabhat Jha

Nuffield Professor of Population Health, and Head of Oxford Population Health

Prabhat founded the Million Death Study in India, which monitors all deaths in nationally-representative random samples. Jha expanded reliable mortality measurements to over 15 countries, with such initiatives active in Sierra Leone, Ethiopia, Southeast Asia and elsewhere. Prabhat's approach forms an essential tool to monitor pandemics, including COVID, and routine killers like malaria. Prabhat conducted research on the hazards of smoking and very large and rapid benefits of cessation in about 16 countries spanning two billion people. He also led a World Bank report on Healthy Longevity, which is being used to expand health services to over 1.5 billion people via country projects.



Angela Brueggemann

Professor of Infectious Disease Epidemiology, IDEU Director, and Deputy Head of Oxford Population Health

Angela's research group focuses on understanding how changes in bacterial population structure impact global health and vaccine initiatives. She leads the IRIS Consortium, an international surveillance programme tracking changes in invasive bacterial disease in the context of the pandemic. Her group also investigates bacteriocins: antimicrobial peptides produced by bacteria to inhibit other competing bacteria. Bacteriocins likely play a major role in structuring the nasopharyngeal microbiome, which is relevant to preventing and managing respiratory infections.



Odile Harrison

Associate Professor, NDPH Senior Research Fellow, Oxford Population Health

Odile's work explores the population genomics of bacterial pathogens including *Neisseria gonorrhoeae*. She is particularly interested in defining bacterial lineages using genome sequence data as this allows strains associated with distinct pathologies, including antimicrobial resistance, to be more rapidly identified. Such information brings with it opportunities for improving diagnostics, preventing infection through vaccination and the capacity to limit antimicrobial resistance.



Danny Wilson

Professor of Infectious Disease Genomics and Robertson Fellow, Big Data Institute and Oxford Population Health; Director of Studies in Data Science, Department for Continuing Education

Danny's research interests are in data science, infectious disease and pathogen genomics. Motivating themes in his work are understanding genetic and non-genetic risk factors for infection, and the effects of transmission, natural selection and recombination in shaping pathogen diversity. He has investigated the evolution of pathogen populations from the colonisation of individual hosts and transmission between hosts, through to the whole-species and phylogenetics levels.



Leon Peto

NDPH Senior Clinical Research Fellow, Oxford Population Health; Honorary Consultant in Infectious Diseases and Microbiology, Oxford University Hospitals NHS Trust

Leon joined the department in late 2020 to work on the RECOVERY trial, which is testing treatments for patients admitted to hospital with COVID-19.



Melissa Iacovidou

NDPH Early Career Fellow, Oxford Population Health

Melissa works in the Big Data Institute on mathematical modelling of infectious diseases in the SchistoTrack Group. Melissa analyses spatiotemporal data from the SchistoTrack cohort, characterising the ecological niches of intermediate snail hosts, identifying determinants of cure following praziquantel treatment, and integrating mobility patterns in individual-based models. Melissa is aiming to link schistosome transmission and morbidity development and progression using mathematical models, to provide realistic disease burden estimates and inform treatment strategies for endemic countries



Phyllis Munyiva

Research Coordinator, Oxford Population Health

Phyllis supports the SchistoTrack Cohort study, a large-scale collaboration with the Uganda Ministry of Health and contributes to analyses on schistosomiasis morbidity and management. The group aims to improve schistosomiasis treatment through an integrated approach combining epidemiology, machine learning, large-scale fieldwork, and community engagement. Phyllis previously studied paediatric schistosomiasis in hard-to-reach Kenyan populations and worked at Kenya's Ministry of Health, coordinating the national schistosomiasis control program and leading large-scale implementation research.



Professor Joris Hemelaar

Associate Professor, NDPH Senior Clinical Research Fellow, Oxford Population Health; Honorary Consultant Obstetrician, John Radcliffe Hospital

Joris' research focuses on the association of maternal HIV infection and antiretroviral therapy with adverse maternal and child outcomes, with a view to developing predictive, preventative and interventional strategies. He also investigates the global molecular epidemiology of HIV, which impacts transmission, pathogenesis, diagnosis, treatment, and HIV vaccine development.



Prof Dame Molly Stevens

John Black Professor of Bionanoscience, Institute of Biomedical Engineering, Oxford

Molly's multidisciplinary research balances the investigation of fundamental science with the development of technologies and designer biomaterials to address some of the major healthcare challenges across diagnostics, advanced therapeutics and regenerative medicine. Her work has a strong translational drive, focussed on translating scientific innovation into practical solutions to benefit patients and society. She is a serial entrepreneur and the founder of five spin-off companies. She is also the Oxford University Champion for Women and Diversity in Entrepreneurships.



Robin Thompson

Associate Professor, Mathematical Institute, Oxford

Robin leads the Infectious Disease Modelling group, which develops mathematical models to inform interventions throughout infectious disease outbreaks. Robin also leads the Vaccines and Epidemiology theme of the new Oxford-GSK Modelling Informed Medicine Centre (MiMeC) and is currently leading projects in his group involving modelling avian influenza in Great Britain and modelling the impact of climate variability and change on vector-borne disease.



Nicole Stoesser

Consultant in Infection, Oxford University Hospitals NHS Foundation Trust; NIHR Oxford Senior Research Fellow; and Oxford Martin School Fellow

Nicole runs a research group within the Modernising Medical Microbiology Unit in the Nuffield Department of Medicine. Her research focuses on *E coli* and *Klebisella*, antimicrobial resistance, and the application of genomics (isolate, metagenomics) to understand the epidemiology of infections caused by these organisms, innovate surveillance approaches, and facilitate interventions to mitigate them.



Simon Draper

Professor of Vaccinology and Translational Medicine, Department of Paediatrics and Kavli Institute for Nanoscience Discovery, Oxford

Simon's research group studies vaccine-induced immunity to malaria, with a particular focus on antibody immunology. Their research spans from preclinical vaccine design through to experimental medicine studies and Phase 2 clinical trials. In particular, the group has pioneered novel vaccines for blood-stage *P falciparum* malaria targeting the RH5 antigen. These are currently in Phase 1/2 clinical testing as next-generation malaria vaccines in a programme of work that spans partnerships across East and West Africa.



Caesar Atuire

Professor of Global Health Ethics and Co-Associate Director, Oxford Global Health

Caesar is a philosopher and health ethicist from Ghana. Caesar works on the underlying conceptual frameworks informing bioethics by drawing on philosophical ideas, African and non-African, that address inequity in the relationships that govern current approaches to global health with an eye to new ethical frontiers, decolonisation, and pluriversality. He has led empirical research on conceptualisations and ethics of mental healthcare, especially in relation to persons who hold cultural and religious beliefs about the mind.



Adrian Smith

Associate Professor, Oxford Population Health

Adrian researches HIV, sexually transmitted infections, malaria, tuberculosis, influenza, and COVID-19. His work focuses on diagnostics, transmission dynamics, antimicrobial resistance, and intervention development for key populations in low- and middle-income countries, particularly in East Africa and Latin America. He has played a central role in generating policy-relevant evidence that has shaped national and global HIV strategies, informed WHO and UNAIDS guidance, and supported more equitable approaches to prevention and care. His research programme combines methodological innovation, molecular and behavioural epidemiology, community partnership, and health-systems translation to advance equitable responses to emerging and entrenched infectious diseases.



Mike Parker

Professor of Bioethics and Ethox Centre Director, Oxford Population Health

Mike's main area of research interest is in global health and infectious disease ethics. In 2010, together with partners in Africa and Southeast Asia he established the Global Health Bioethics Network. In 2019, together with colleagues at the Berman Institute, he established the Oxford-Johns Hopkins Global Infectious Disease Ethics Collaborative (GLIDE). Together with Alice Norton he leads the Ethics, Policy and Context theme of the Pandemic Sciences Institute. His other main research interest is in value pluralism and disagreement about ethics. Together with colleagues across the University, in Singapore and in Ghana he leads the Wellcome Discovery Research Platform, ANTITHESES.



Gil McVean

Principal Scientist - Pathogen Program, Ellison Institute of Technology

Gil leads the Pathogen Program, which is developing genomic data resources, technologies, and analytical frameworks to support infectious disease diagnosis, treatment selection, and global monitoring. His research more broadly examines the molecular and evolutionary processes shaping genetic variation and its relationship to phenotype. He played leading roles in international collaborations including the 1000 Genomes Project, advancing understanding of recombination, mutation, and complex disease genetics.



Susanne Hodgson

Research Fellow and Lecturer in Clinical Medicine, Oxford Vaccine Group; Honorary Consultant in Infectious Diseases and Microbiology

Susanne is a physician scientist with an interest in early phase vaccine development and human challenge studies. She currently leads the Gonococcal Vaccine Project at the Jenner Institute, and the Gonococcal Human Challenge Programme at the Oxford Vaccine Group.



Ben Lacey

Associate Professor of Medicine and Epidemiology, UK Biobank, Oxford Population Health

Ben's research interests are in population health metrics, health inequalities, and the enhancement of large-scale observational epidemiology, focusing particularly on the use of linked administrative records.



Angeliki Kerasidou

Associate Professor in Bioethics, Ethox Centre, Oxford Population Health

Angeliki is an expert in research ethics, currently working in the area of data-driven research and AI. Her focus is primarily on the issues of trust and reliance, including what it means and how to ensure public trust in research on health data held and controlled by public bodies and biobanks. Angeliki currently leads on a number of collaborative projects investigating trust-related issues in the development of medical AI tools, and on public trust and justice in health data use and research. Angeliki leads the Oxford Network for Sustainable and Trustworthy AI in healthcare (OxSTAI), and acts as an Independent Ethics Advisor for EU funded projects developing medical AI tools.



Shing Zhan

NDPH Intermediate Research Fellow, Oxford Population Health

Shing is developing computational methods and software tools to reconstruct and analyse the genetic ancestry of pathogens from large genomic datasets. Before joining Oxford Population Health, he was a Janssen-Oxford Translational Genomics Fellow at the Big Data Institute working on scalable methods to analyse human genomic data with Jerome Kelleher and others.



Iman Yassine

Postdoctoral researcher, Oxford Population Health

Iman's research applies genomic approaches to study the population structure, bacteriocin diversity, and antimicrobial resistance of pathogens including *Moraxella catarrhalis*, *Staphylococcus aureus*, and *Streptococcus pneumoniae*, with a focus on strengthening global pathogen surveillance and improving public health response.



Saskia Proud

DPhil student, Oxford Population Health and Nuffield Department of Medicine

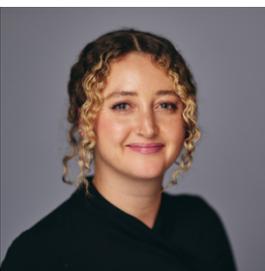
Saskia's work involves investigating the impact of genetic variability of *Haemophilus influenzae* on their ability to cause childhood pneumonia.



Hugh White

Postdoctoral researcher, Infectious Disease Genomics group, John Radcliffe Hospital

Hugh is interested in bacterial genomics and ecology, specifically in when bacterial species can acquire novel traits and expand into ecological niches and why. His doctoral research aimed to identify the primary processes involved in the maintenance of distinct bacterial clades. His current work will focus on setting up a comprehensive library of clinical microbiological samples as part of the Bugbank study, building upon work investigating the transition from a commensal to a pathogenic lifestyle in *Staphylococcus aureus*.



Sandrena Frischer

DPhil student, Oxford Population Health

Sandrena uses empirical bioethics methodologies to understand and navigate practical ethical issues affecting care continuity during biomedical research on neglected diseases of poverty. These issues include challenges surrounding ancillary care for research participants, moral distress experienced by frontline research staff and local health workers, and the nature of research collaborations with public sector health systems in low-income settings.



Max Lang

DPhil student, Oxford Population Health

Max's research focuses on the modelling of diseases within multimorbid settings, specifically exploring the co-infection dynamics of schistosomiasis and malaria within the SchistoTrack Cohort Study in rural Uganda, with the aim of improving treatment targeting and understanding of disease interactions.



Ellie Ockenden

Postdoctoral researcher, Oxford Population Health

Ellie works in the SchistoTrack group and is interested in addressing aspects of health inequality through technology, specifically on clinical decision support in low-resource settings. Her DPhil was on the development of deep learning-based classification models for the staging of schistosomiasis-induced liver fibrosis from ultrasound images and video. Her postdoctoral research concerns consultation of clinicians to inform next steps for development of training tools for schistosomiasis-induced liver fibrosis diagnosis.



Zizheng Zhang

DPhil student, Oxford Population Health

Zizheng's DPhil project aims to employ clinical AI and machine learning to improve the demand management of hospitals.



Ana Unitt

NDPH Early Career Fellow, Oxford Population Health

In Ana's research she applies large genetic datasets to investigate bacterial pathogens, predominantly *Neisseria gonorrhoeae*. She is interested in exploring how genetics can reveal the distribution of traits of interest across bacterial populations, e.g. antimicrobial resistance genes, or vaccine antigen variants. Using this population genetics approach, she examines DNA sequence variation across thousands of isolates.



Krisna Made

Postdoctoral researcher, Oxford Population Health

Krisna is an early-career researcher in bacterial genomics, specifically on antimicrobial resistance in *Neisseria gonorrhoeae*. She finished her DPhil in 2025, in which she studied the population genetics of *Haemophilus influenzae*. Her research interests span from clinical research to epidemiology and bioinformatics, particularly in microbiology and infectious disease.



Matt Quinn

DPhil student, Oxford Population Health; Specialist Registrar in Public Health Medicine

Matt joined the IDEU in October 2025 as a DPhil student. His research explores the use of vaccines as a tool for reducing the burden of antimicrobial resistant infections, with a particular focus on the impact of the UK respiratory syncytial virus (RSV) vaccination programme on antibiotic use.



Priya Lall

Lecturer in Population Health, Oxford Population Health

Priya's research focuses on health inequalities affecting disease risk and treatment in the UK and Asian countries. To this end, she has applied an evidenced-based approach to the assessment of water and sanitation programmes in Cambodia, HIV prevention interventions in Malaysia and a national level end of life care programme in Singapore.



Helen Fryer

Senior Postdoctoral Scientist, Oxford Population Health

Helen's research is centred in statistical genomics and in developing methods at the interface of dynamical modelling, evolutionary modelling, and statistics to analyse data related to infectious diseases.



Vanessa Tobert

Clinical Research Fellow, Oxford Population Health

Vanessa works primarily on the RECOVERY Trial. In early 2020 the trial focused on testing treatments for people admitted to hospital with COVID-19 pneumonia but has now evolved to evaluate treatments for other types of pneumonia including influenza and non-viral community-acquired pneumonia. Vanessa is also a Doctor of Medicine candidate, and her research focuses on the use of novel biomarkers in viral infection to predict disease prognosis and response to treatment with neutralizing monoclonal antibody therapy.



Alyssa Fitzpatrick

DPhil student, Oxford Population Health

Alyssa is an infectious diseases physician currently based in Adelaide, Australia. Her DPhil will examine maternal and neonatal outcomes in mothers living with HIV and hepatitis B infection receiving antiretroviral therapy in pregnancy. Alyssa has an interest in maternal health and has previously completed the Diploma of the Royal Australasian College of Obstetricians and Gynaecologists, prior to undertaking infectious diseases training.



Ayisha Khalid

DPhil student, Oxford Population Health

Ayisha's research investigates spatial and temporal trends in HIV genetic diversity as well as the factors driving these trends. Prior to joining Oxford, Ayisha worked as an epidemiologist at the British Columbia Centre for Disease Control to survey respiratory pathogens.



Kieran Johnstone

DPhil student, Oxford Population Health; Specialist Trainee in Emergency Medicine, Thames Valley Region

Kieran began his DPhil in Population Health in October 2025. His research uses big data approaches to identify patients at risk of harm from bacterial infections. Kieran's academic and professional interests lie at the intersection of emergency care and population health.



Helen McNeil

Business Development Executive



Helen completed her PhD at the University of Birmingham, studying the diversity of *Mycobacterium tuberculosis* strains in the Midlands. She then worked with Prof Jess Blair on antibiotic resistance in *Salmonella*. After using MicrobesNG for whole genome sequencing as a customer, she joined the company in 2022.