

**Diagnostic
Evidence Co-operative**
Oxford | Leeds | KTN

NHS
*National Institute for
Health Research*

Antimicrobial Resistance: Diagnostic Solutions

25 January 2017
St Hugh's College, Oxford



Notice of photography and filming

The Antimicrobial Resistance: Diagnostic Solutions workshop is being visually documented. By attending, you acknowledge that you have been informed that you may appear in photographs or videos taken during this event. Images taken will be treated as the property of NIHR Diagnostic Co-operative Oxford and may be used in the future for promotional purposes. These images may be used without limitation by any organisation approved by NIHR DEC Oxford and edited prior to publication. Images will be available on the internet accessible to internet users throughout the world including countries that may have less extensive data protection laws than partnering countries. All films will be securely stored on University of Oxford servers. Please make yourself known at the registration desk if you wish to remain off camera.

Drinks reception:
5.15-6.30pm,
Maplethorpe Foyer

Dinner:
6.30-8.30pm,
Wordsworth Room

There is no dress-code.

Wi-fi

The college is served by The Cloud. Sign up to create a free account: <https://service.thecloud.net/service-platform/login/>

Luggage

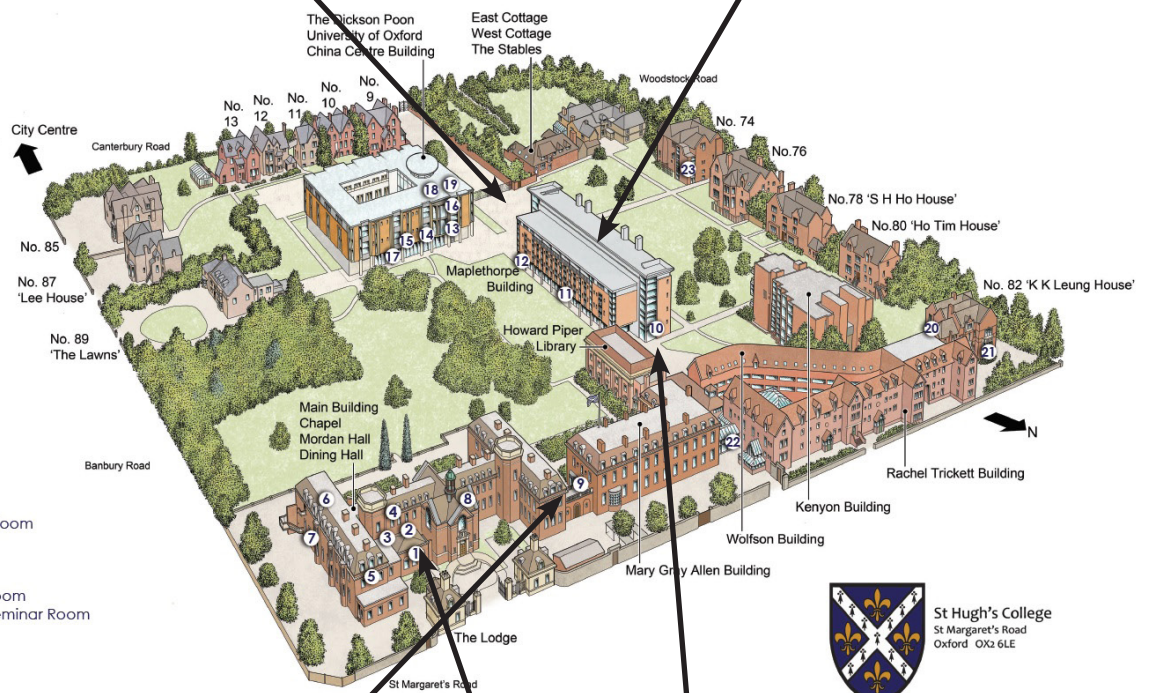
You may leave luggage in the cloakroom in the Maplethorpe foyer: ask at the registration desk

**Registration desk, luggage,
info: MTB foyer**

**Main talks/Workshop 1:
MTB lecture theatre**

Key

- 1 Wordsworth Room
- 2 Emily Wilding Davison Room
- 3 Boardroom
- 4 Hamlin Rooms 1 & 2
- 5 Dobbs Rooms 1 & 2
- 6 Mordan Hall
- 7 Dining Hall
- 8 Chapel
- 9 MGA Lecture Room
- 10 Maplethorpe (MTB) Seminar Room
- 11 Maplethorpe (MTB) Hall
- 12 Maplethorpe (MTB) Office
- 13 Ho Tim Seminar Room
- 14 Winston C S Wong Seminar Room
- 15 The Ho, Leung, Ho and Lee Seminar Room
- 16 Louey Seminar Room
- 17 Wordsworth Tea Room
- 18 Lecture Theatre 1
- 19 Lecture Theatre 2
- 20 Old Law Library
- 21 82 Seminar Room
- 22 The Bar
- 23 74 Seminar Room



St Hugh's College
St Margaret's Road
Oxford OX2 6LE

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**Workshop 3: MGA
lecture room**

**Workshop 2: MTB
seminar room**

**Dinner: Wordsworth
room**

Morning session:
Community Health/Markers of infection

Time	Topic	Speaker	Room
10.00-10.30	Registration and tea/coffee Maplethorpe foyer		
10.30-10.40	UTIs in primary care: The next frontier. Common infections diagnostic research	Chris Butler, University of Oxford	Maplethorpe Building lecture theatre
10.40-10.50	Respiratory tract microbial tests for children in primary care. What do we know and what are the implications for POC tests?	Alastair Hay, University of Bristol	MTB
10.50-11.00	The role of NPT in prescribing for acute sore throat and acute cough	Mike Moore, University of Southampton	MTB
11.00-11.10	What type of diagnostics are needed to manage the challenge of antimicrobial resistance? A survey of the trade-offs chosen by the European stakeholder groups	Michael Hopkins, University of Sussex	MTB
11.10-11.20	Diagnosing serious infection in children	Ann Van den Bruel, University of Oxford	MTB
11.20-11.30	The Diag-CORE system - a new solution for near patient testing	Claudia Van de Sand, STAT-Diagnostica	MTB
11.30-11.40	Uncovering respiratory infection by decoding the neutrophil biomarker message in urine	Paul Davis, Mologic	MTB
11.40-11.50	Simulation of intervention-enhanced care pathways: a sepsis-procalcitonin test exemplifier	Eddie Blair, Integrated Medicines Ltd	MTB
11.50-12.00	AMR and combined FBC/CRP solutions	Mandy Campbell, HORIBA	MTB
12.00-12.10	Current support for reducing antimicrobial prescribing and simple collaborative approaches for research	John Parry, TPP	MTB
12.10-12.20	TB and sepsis biomarkers	Seshadri Vasan, Public Health England	MTB
12.20-13.30	Lunch Maplethorpe foyer		

Afternoon session:
Specific pathogens/Hospital guidelines

Time	Topic	Speaker	Room
13.30-13.40	High-value <i>in vitro</i> diagnostics in sepsis	Paul Dark, University of Manchester	Maplethorpe Building lecture theatre
13.40-13.50	Electrochemical Biosensors for Rapid Diagnostics to fight Antimicrobial Resistance	Till Bachmann, University of Edinburgh	MTB
13.50-14.00	Novel diagnostic strategies to reduce inappropriate antibiotic prescribing for urinary tract infection in secondary care	Laura Shallcross, University College London	MTB
14.00-14.10	Global Health Diagnostics: needs, challenges and promises	Rosanna Peeling, LSHTM	MTB
14.10-14.20	The clinical need for better antimicrobial resistance related diagnostics	Mark Wilcox, University of Leeds	MTB
14.20-14.30	NICE and the AMR challenge	Carla Deakin, NICE	MTB
14.30-14.40	BIVDA AMR working party: an industry perspective	Sarah Wallis, Mast Group	MTB
14.40-14.50	An introduction to Nanopore Sensing	James Platt, Nanopore	MTB
14.50-15.00	Rapid phenotypic susceptibility testing to guide antibiotic prescription	Mat Upton, Spectromics	MTB
15.00-15.10	The IRIDICA diagnostic system	Simon Singer, Abbott/Iridica	MTB
15.10-15.30	Tea/coffee break		Maplethorpe foyer
15.30-16.15	Session 1 Workshop 1: Detection & management of sepsis Workshop 2: Urinary tract infection Workshop 3: Prescribing in respiratory infection		1: MTB Lecture theatre 2: MGA Lecture room (main building) 3: MTB Seminar room
16.15-17.00	Session 2 Workshop 1: Detection & management of sepsis Workshop 2: Urinary tract infection Workshop 3: Prescribing in respiratory infection		1. MTB Lecture theatre 2. MGA Lecture room (main building) 3. MTB Seminar room
17.00-17.15	Concluding remarks		Maplethorpe lecture theatre
17.15-18.30	Drinks reception		Maplethorpe foyer
18.30-20.30	Dinner		Wordsworth room

Professor Chris Butler, University of Oxford 10.30-10.40



Chris Butler is professor of primary care at the University of Oxford's Nuffield Department of Primary Care Health Sciences and professorial fellow at Trinity College. He is the Clinical Director of the University of Oxford Primary Care Clinical Trials Unit. His main research interest is common infections (especially the appropriate use of antibiotics and antibiotic resistance). He is currently chief investigator of numerous clinical trials including the POETIC Trial which evaluated a point of care test for urinary tract infection. In 2016, he was appointed an NIHR Senior Investigator, and made Fellow of the Academy of Medical Sciences.

Professor Alastair Hay, University of Bristol 10.40-10.50



Alastair Hay qualified with a Distinction in Medicine from Sheffield Medical School in 1991, has been a General Practitioner since 1997 and joined the Centre for Academic Primary Care at the University of Bristol in 2001. He leads the primary care infection research group within the Centre for Academic Primary Care which has an international reputation for high quality applied health research, based on inter-disciplinary links within the School of Social and Community Medicine, the NIHR School of Primary Care Research, the Bristol led NIHR Health Protection Research Unit, and collaborative links with like-minded researchers at the Universities of Oxford, London, Southampton and Cardiff.

Professor Michael Moore, University of Southampton 10.50-11.00



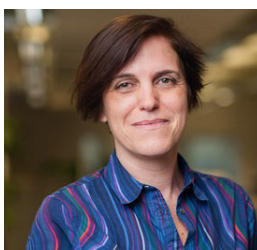
Professor Michael Moore is Professor of Primary Health Care Research within Medicine at the University of Southampton. He is an academic GP with more than 25 years' experience as a partner in a Salisbury practice. His practice has been engaged in research since 1993 and is now actively contributing to NIHR clinical network research.

Dr Michael Hopkins, University of Sussex 11.00-11.10



Dr. Michael Hopkins is a Senior Lecturer in Science and Technology Policy and Director of Research at the Science Policy Research Unit (University of Sussex). Michael's main research focus is the dynamics of technological change in medical innovation, and in particular the processes associated with diagnostic innovation. Michael has over 15 years of experience researching the development and use of diagnostics and therapeutics. He has been PI for a series of international projects on themes related to the social and technological challenges of medical innovation and has published widely in internationally leading social science and science journals, as well as authoring numerous policy reports and articles for wider audiences.

Professor Ann Van den Bruel, University of Oxford 11.10-11.20



Ann Van den Bruel is an Associate Professor at the University of Oxford and the University of Utrecht. She is Director of the NIHR Diagnostic Evidence Co-operative Oxford which aims to facilitate diagnostic innovations in the NHS. They offer training and advice for anyone who is developing a new diagnostic test for primary care. Ann has worked mainly on the diagnosis of serious infections in children, conducting a large-scale study in primary care to analyse the value of clinical features for this diagnosis. The results of these studies have been used in several guidelines including one on feverish children by NICE.

Dr Claudia Van de Sand, STAT-Diagnostica 11.20-11.30



Claudia Van de Sand completed her PhD in Malaria research in 2005. She has more than 10 years of experience in *in vitro* diagnostic real time and multiplex PCR assay development in infectious disease. From 2006-2014 she was team leader in R&D at QIAGEN in Hamburg, Germany working on the planning and management of IVD product development. Since 2015 she has been the project manager at STAT-Diagnostica in Barcelona, Spain working on the project management for multiplex PCR IVD assays.

Professor Paul Davis, Mologic 11.30-11.40



Since 2002 Paul Davis has founded/co-founded 8 science-based businesses, 7 of which are still trading. The most prominent of these, Mologic Ltd., is focused on diagnostics and personalised patient care, especially with regard to inflammation and infection. His earlier career (up to 2002) was as a Senior Scientist in Unilever Research, where he led research in applied Immunology, (diagnostics, vaccines, allergy and antibody-engineering). He was one of the Unilever team which founded Unipath (now SPD), maker of the first home pregnancy test (Clearblue), for which he invented much of the underlying patented technology.

Eddie Blair, Integrated Medicines Ltd 11.40-11.50



Eddie Blair is a precision medicine thought leader with experience in development and commercialisation of both therapeutics and diagnostics. He has held several interim executive positions (CEO, CSO) in SMEs and AIM-listed companies, raising more than £15M in the process. He has also held non-executive positions on the boards of private and public companies, specialising in remuneration matters, and currently lectures on Cambridge University's Masters in Bioscience Enterprise Course. His most recent role was an extended contract position at Bristol Myers Squibb Pharmaceuticals Limited, developing and executing their biomarker strategy for immuno-oncology biotherapeutics.

Mandy Campbell, HORIBA UK Ltd 11.50-12.00



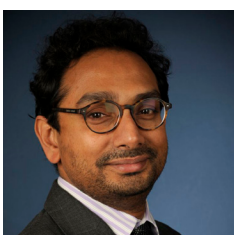
Mandy is the product manager for the Medical instruments for HORIBA UK Ltd. and has a particular interest in exploring new settings and applications for the analysers. She has worked for HORIBA for the past fifteen years in various job roles, the previous being Technical Support and Training Manager. She is a former NHS Senior Biomedical Scientist specialising in Haematology and Blood Transfusion and worked at Hinchingsbrooke and Papworth Hospitals in Cambridgeshire and Frenchay Hospital in Bristol.

Dr John Parry, TPP 12.00-12.10



Dr Parry is the clinical lead at TPP, directing the clinical aspects of all products throughout the development process. John became a Director in 2007 and now leads a team of expert clinicians, ensuring TPP's products meet the requirements of health services. Dr Parry's expertise as a healthcare specialist is nationally recognised. He is a member of various high-level committees, including the TechUK Health and Social Care board. As a leading clinician, he is frequently invited to give keynote speeches on a wide range of topics, including information governance and the role of IT in patient care.

Professor SS Vasan, Public Health England 12.10-12.20



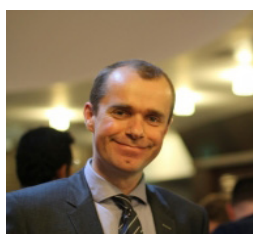
Professor S.S. Vasan is Senior Business Development Manager for Public Health England (PHE), and prior to that for the Health Protection Agency. A former McKinsey consultant, he was Head of Public Health for Oxford University's spin-out Oxitec from 2005 to 2011. Professor Vasan was PHE's business development lead for Ebola for which his team won the Impact Awards 2015 for Contribution to Society from the UK Research Councils. He obtained his doctorate from Trinity College, Oxford, and is a Fellow of the Royal Society of Medicine, Royal Entomological Society, Royal Society for Public Health and the Chartered Management Institute.

Speakers - afternoon session



Professor Paul Dark, University of Manchester 13.30-13.10

Paul is Professor of Clinical Care Medicine at the University of Manchester and leads a programme of work funded by the National Institute of Health Research (NIHR) developing and assessing the diagnostic utility of emerging molecular technologies in the setting of sterile tissue injury and severe infection - focused on matrices in blood and breath. Funded by Innovate UK, he has also led a programme of work developing novel technologies aimed at rapid point-of-care infection/sepsis diagnosis. In addition to NHS/NIHR R&D leadership roles regionally and nationally, Paul holds senior academic leadership positions in the Faculty of Biology, Medicine and Health focused on developing postgraduate learning in research and innovation in acute healthcare.



Dr Till Bachmann, University of Edinburgh 13.40-13.50

Till Bachmann's scientific interests focus on rapid molecular diagnostics of infectious diseases and antibiotic resistance targeting stratified medicines. He has led a number of large interdisciplinary diagnostic projects (e.g. ITI Techmedia Chronic Wound Care/Biosensing Platform Programme) leading to a product development programme with a large partner from the healthcare industry. Till co-founded Namaxx Genomics GmbH, is a founding member of the European Diagnostics Cluster Association, member of the steering group for the Biosensing Special Interest Group of the Electronics, Sensors, Photonics KTN and the Scientific Advisory Board of the Biomedical Diagnostics Institute (Dublin). Till has lead various national and international events on biosensors, diagnostics and personalised medicine.



Dr Laura Shallcross, University College, London 13.50-14.00

Laura Shallcross is a NIHR Clinician Scientist and Honorary Consultant in Public Health, based at the UCL Institute of Health Informatics. Her research focuses on the use of "big data" from electronic health records and omics to develop novel diagnostic and risk prediction tools to improve antibiotic prescribing, with a current focus on urinary tract infections.



Professor Rosanna Peeling, LSHTM 14.00-14.10

Rosanna Peeling is currently Professor and Chair of Diagnostics Research at the London School of Hygiene and Tropical Medicine and Director of the International Diagnostic Centre (IDC). Her work focuses on research to define unmet diagnostic needs, facilitate test development, evaluation and implementation in the developing world. She established the IDC to advocate the value of diagnostics, foster innovation, and accelerate access to quality-assured diagnostics to improve global health. She is a member of WHO guideline development groups and international expert advisory panels, including the Prize Advisory Panel for the UK Longitude Prize and The European Commission Horizon 2020 Prize for better use of antibiotics.



Professor Mark Wilcox, University of Leeds 14.10-14.20

Professor Mark Wilcox is a Consultant Microbiologist, Head of R & D in Microbiology at the Leeds Teaching Hospitals (LTHT), Professor of Medical Microbiology at the University of Leeds (Leeds Institute of Biomedical and Clinical Sciences), and is the Lead on *Clostridium difficile* and Head of the UK *C. difficile* Reference Laboratory for Public Health England (PHE).

Mark sits on several committees and is a member of the PHE's Programme Board on Healthcare Associated Infection & Antimicrobial Resistance. He is a member of the Medical Research Council's Infections and Immunity Board, and the Scientific Advisory Board for the EU Innovative Medicines Initiative's COMBACTE-NET consortium.

Carla Deakin, NICE 14.20-14.30



Having started her career as a Biomedical Scientist, Carla moved into the UK *in-vitro* diagnostics industry where she spent the following 25 years gaining both commercial and healthcare system experience in a variety of roles. Carla moved to NICE in February 2014 as Associate Director for the Diagnostics Assessment Programme and holds a PGDip in Health Economics and Health Policy.

Sarah Wallis, The Mast Group 14.30-14.40



Sarah has worked in various microbiology laboratories as a Biomedical Scientist around the UK for 30 years, gaining her fellowship in bacteriology in 1983. Sarah is currently the Sales Support and Marketing Manager for the Mast Group Ltd having joined the company in Oct 2012.

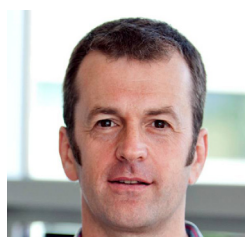
Since 2013 Sarah has been a committee member on the BSMT (British Society for Microbial Technology) which aims to promote an exchange of information on laboratory practices in clinical microbiology. Recently Sarah has taken on the role of deputy chair for BIVDA's working party on antimicrobial resistance which is her main area of interest.

Dr James Platt, Nanopore 14.40-14.50



James Platt is a Technical Applications Specialist at Oxford Nanopore Technologies. His role is to provide technical and application support to scientists using nanopore sequencing in their work. Before joining Oxford Nanopore he was a post-doctoral researcher at the University of Oxford. During his post-doctoral work and his PhD he utilised next-generation sequencing technologies to research topics ranging from renal carcinoma to developmental biology. He has extensive experience designing and executing molecular biology and bioinformatics pipelines to translate sequencing information into tangible biological insights.

Dr Mat Upton, Spectromics 14.50-15.00

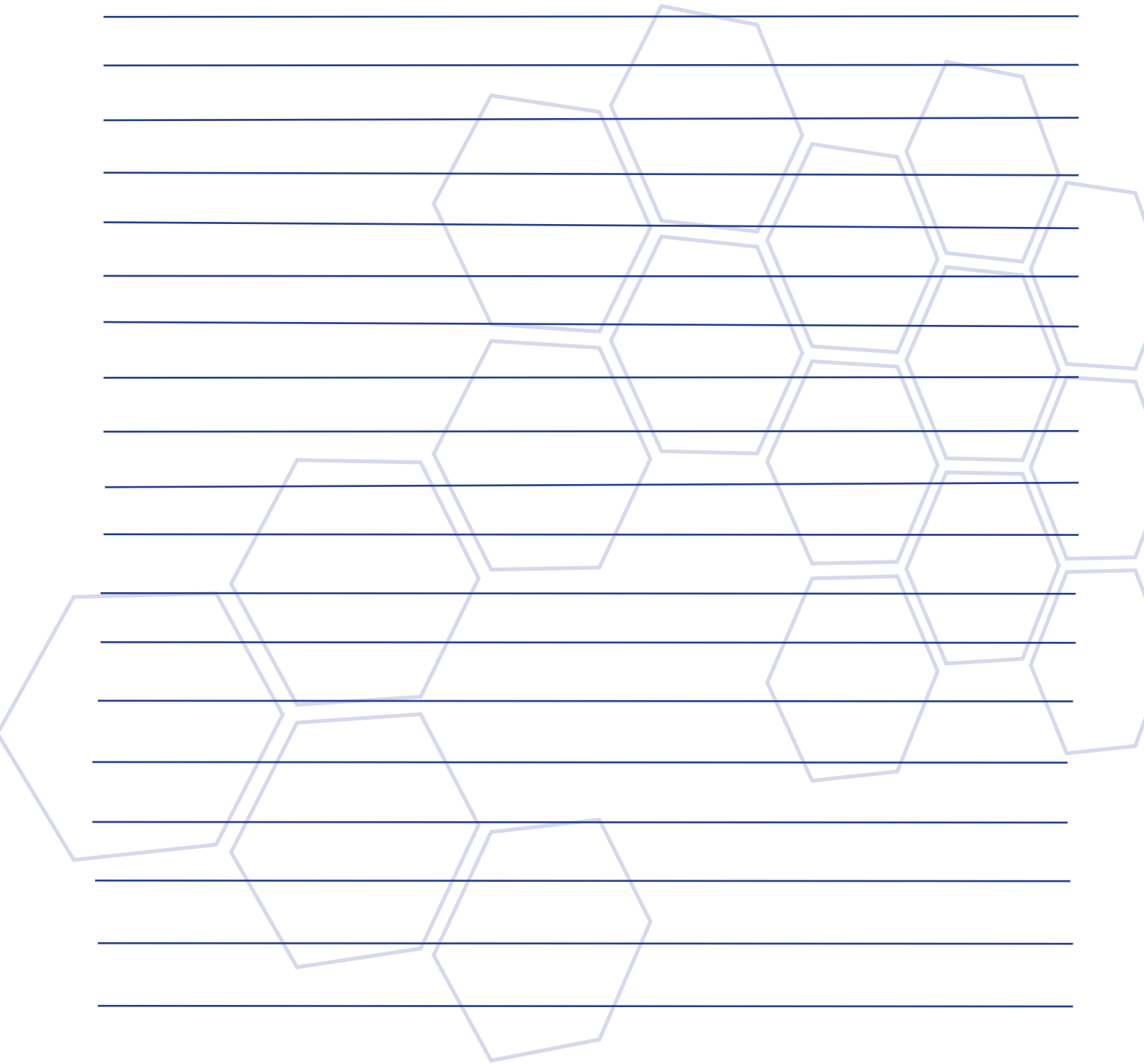


Dr Mat Upton is an Associate Prof in Medical Microbiology and holds BSc and PhD degrees in microbiology from the University of Newcastle upon Tyne. He is co-founding Director at Spectromics. His research group investigates the genetics of antibiotic resistant bacterial pathogens and he runs a programme of development of novel antibiotics. Dr Upton has published over 70 papers in the field of medical microbiology and he holds three granted patents relating to novel antibiotics.

Dr Simon Singer, Abbott/Iridica 15.00-15.10



Simon Singer graduated in medicine from the University of Glasgow in 2001. He began his career training in surgery, but has worked in industry since 2008, obtaining experience as a clinical trial investigator and medical advisor in pharmaceuticals. He assumed his present position with Abbott Laboratories Ltd, working in the diagnostic field in 2014.



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6th UK Diagnostics Forum 2017

Save the date!

The next Diagnostics Forum will be held in Oxford on 16-17 May 2017. If you would like to attend, please email dec@phc.ox.ac.uk to join the mailing list. Bookings will open in February.

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A meeting of industry, academia and healthcare developing ways to facilitate the utilisation and adoption of innovative tests through good quality evidence.

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