

# AGENDA: NOVEL DIAGNOSTICS FOR INFECTIOUS DISEASES

25-26 March, 2024; Royal Society, London

This event is co-organised and funded by the [Institute of Infection](#), [B2B2B Network](#), [London In Vitro Diagnostics Co-operative](#), [NIHR Biomedical Research Centre](#), and [DIAMONDS consortium](#). Funding is also provided by the UKRI IAA Healthy Society award and the Rosetrees Trust.

DAY 1: 25 March			
	09:00	Registration	
Introduction	09:30	Introduction	<b>Charles Bangham</b> (Imperial)   Welcome <b>Mike Levin</b> (Imperial)   Why do we need new diagnostic <i>approaches</i> for infectious diseases? <b>Aubrey Cunnington (Imperial)</b>   Why do we need new diagnostic <i>technologies</i> for infectious diseases?
			<b>Myrsini Kaforou (Imperial)</b>   Identification of host RNA biomarkers for infectious and inflammatory diseases <b>Jethro Herberg</b> (Imperial)   Host transcript biomarkers: taking theory into practice <b>Shea Hamilton (Imperial)</b>   Multi-platform approaches to identify blood-based host protein signatures for infectious and inflammatory diseases in children <b>David Antcliffe</b> (Imperial)   Host response to sepsis and personalization of treatment
Technological Challenges	09:55	Host biomarker-based diagnostics	<b>Myrsini Kaforou (Imperial)</b>   Identification of host RNA biomarkers for infectious and inflammatory diseases <b>Jethro Herberg</b> (Imperial)   Host transcript biomarkers: taking theory into practice <b>Shea Hamilton (Imperial)</b>   Multi-platform approaches to identify blood-based host protein signatures for infectious and inflammatory diseases in children <b>David Antcliffe</b> (Imperial)   Host response to sepsis and personalization of treatment
	11:00	Break	
	11:15	Molecular diagnostics	<b>Andrea Cabibbe</b> (Ospedale San Raffaele)   Culture-free whole genome sequencing of Mycobacterium tuberculosis <b>Pantelis Georgiou and Jesus Rodriguez Manzano</b> (Imperial/ProtonDx)   Revolutionising the world of rapid molecular testing with ProtonDx
	11:55	Microfluidics and nanomaterials	<b>Alex Sturm</b> (Resistell)   2-hour rapid AST based on bacterial vibrations <b>Mark Sutton</b> (UKHSA)   Impedance-based, fast antimicrobial susceptibility test (iFAST) platform <b>Leah Frenette</b> (Imperial)   Nanozymes for ultrasensitive detection at the point of care
	12:25	Biosensors and imaging	<b>Eva Rennen</b> (Nostics)   10 minutes to ID, point of care diagnostics platform for UTIs <b>Tara deBoer</b> (BioAMP Diagnostics)   Evolving clinical microbiology beyond growth-based diagnostics <b>Tony Cass</b> (Imperial)   Nucleic acid aptamers for sensing and imaging <b>Magdalena Karlikowska</b> (Cytecom)   Growth-independent, rapid antimicrobial susceptibility testing utilising bacterial optical electrophysiology
	13:05	Panel discussion	Chair: Pantelis Georgiou
	13:35	Lunch	
Clinical applications and regulatory challenges	14:35	Early stage & real-world context of use	<b>Peter Buckle</b> (Imperial)   Early stage and real-world context of use
	14:45	Imperial's model for translation	<b>Graham Cooke</b> (Imperial)   Stimulating diagnostic innovation in an academic settings <b>Mike Romanos</b> (Imperial)   Challenges and opportunities in the development and commercialisation of diagnostics <b>Daniel Morley (DNAe)</b>   Bringing Next Generation Sequencing Technology to the Point-of Need for Infectious Disease and Oncology Diagnostics
	15:15	Clinician workflow integration	<b>Annie Truong</b> (MHRA)   Performance evaluations of in-vitro diagnostics <b>Christopher Longshaw</b> (Shionogi B.V.)   Role of diagnostics when developing new antibiotics – the importance of getting it right
	15:35	Comparability and interoperability	<b>John Hays, Nikolaos Strepis and Andrew Stubbs</b> (Erasmus MC)   AMR Virtual - A pilot AMR gene prediction benchmarking platform
	15:55	Panel discussion	Chair: Peter Buckle
Drinks reception	16:20	Drinks reception	

**DAY 2: 26 March**

	09:30	Registration/coffee	
<b>Clinical applications and regulatory challenges (continued)</b>	09:45	Microbiology laboratory workflows	<b>Elita Jauneikaite</b> (Imperial)   Optimisation of real-time whole genome sequencing for rapid detection of bacterial species and antimicrobial resistance from clinical samples <b>Susan Poutanen</b> (University of Toronto)   Optimal integration of novel diagnostics into microbiology laboratory workflows
	10:05	LMIC: Diagnostics access and appropriateness	<b>Florence Pradel</b> (Fondation Merieux)   Building local capacity to improve AMR diagnosis and surveillance <b>Catherine Kibirige</b> (Imperial)   The HIVQuant Project - Developing affordable, easy-to-use, point-of-care HIV-1 diagnostics
	10:25	<b>Break</b>	
	10:40	Diagnostics stewardship	<b>Tim Rawson</b> (Imperial)   Optimising antimicrobial prescribing: challenges and solutions in diagnostic stewardship <b>Daniela Cirillo</b> (Ospedale San Raffaele)   How lack of diagnostics has contributed to drug resistance: the case of bedaquiline
	11:00	IP licencing, etc	<b>Branwen Morgan</b> (CSIRO)   Finding the right road to your diagnostic destination <b>Vjera Magdalenic-Moussavi</b> (Imperial)   Creating Impact from Ideas - commercialising science
	11:20	<b>Panel discussion</b>	<b>Chair:</b> Charles Bangham
		11:50	<b>Lunch</b>
<b>Regulation and policy perspectives</b>	12:50	Regulatory alignment	<b>Till Bachmann</b> (University of Edinburgh)   Diagnostics in current AMR Priority Agendas <b>Anita Suresh</b> (FIND)   Infectious disease diagnostics: regulatory and policy considerations
	13:10	Incentives for clinicians and CHWs	<b>Ala Mohan</b> (CSIRO)   Listeria risks and diagnostic regulatory policies in Australia <b>Jordi Vila</b> (Institute of Global Health of Barcelona)   Incentives for clinicians and CHWs
	13:30	Accelerating the adoption of novel diagnostics	<b>Nicholas Graves</b> (Duke-NUS Medical School, Singapore)   Economic Analysis and the Adoption of Novel Diagnostics <b>Nishan Sunthares</b> (ABHI)   Helping adopt diagnostics into the healthcare pathway
	13:50	Innovative economic models	<b>Chantal Morel</b> (KPM Center for Public Management)   Perspectives on diagnostics in health financing: Do we have it right? <b>Akhil Bansal</b> (AMR Funding Circle)   Novel market mechanisms to spur innovation in AMR
	14:10	<b>Panel discussion</b>	<b>Chair:</b> Leonid Chindelevitch
	14:40	<b>Break</b>	
<b>Funding workshop</b>	14:50	Funding Innovative Diagnostics - lessons learnt and roadmap to future impact	Moderator: <b>Till Bachmann</b> (University of Edinburgh) <ul style="list-style-type: none"> <li>• Ann Berger   Rosetrees Trust</li> <li>• Shawon Lahiri   JPIAMR</li> <li>• Ian Newington   NIHR Coordinating Centre</li> <li>• Lesley Ogilvie   AMR R&amp;D Hub</li> <li>• Phil Packer   Innovate UK</li> <li>• Caroline Purslow   Longitude</li> <li>• Betsy Wonderly-Trainor   CARB-X</li> </ul>
<b>Adoption of the London Declaration</b>	15:30	Adoption of the London Declaration on Infectious Disease Diagnostics	<b>Leonid Chindelevitch</b> (Imperial/B2B2B network)
<b>End</b>	16:00		