



Internal news and events

AMR Network Events

Thanks to Dan Bebber, Will Gaze, Steve Hinchliffe and Harry West for speaking at the panel forum on AMR in food systems earlier this month, and to Rich Smith for his chairing.

Next month, we have another “jargon-free” webinar and are delighted to be hosting the following line-up:

- [Dr Angela Cassidy](#) - Sociology, Philosophy and Anthropology
- [Dr Liliane Mukaremera](#) - Centre for Medical Mycology / Biosciences
- [Simon Ryder](#) - Investigative Artist and AMR Network Creative Fellow

This webinar will take place on **Wednesday 14 October, 12:15pm-1:45pm** and an invite will come out shortly. The jargon-free webinars are an excellent way of hearing about the breadth of research across the University and developing network links to inform grant applications. We look forward to you all joining us.

Publication: Neil Gow and Alistair Brown are co-authors of a paper that has just been published in *Nature Microbiology*. The paper is titled [Host immune response against the emerging fungal pathogen *Candida auris*: transcriptional and functional insights](#) and the full list of authors is Bruno, M., Kersten S., Bain, J.M., Jaeger, M., Kruppa, M.D., Lowman, D.W., Zuchaom M., Ning Jiao Y. , Chowdhary, A., Renieris, G., van de Veerdonk, F.L., Kullberg, B-J, Giamarellous-Bourboulis, E.J., Hoischen, A., Gow, N.A.R., Brown, A.J.P., Meis, J.F., Williams, D.L., Netea, M.G.

Publication: another paper to which Neil Gow has contributed and which has just been published is by Kumar, M., Singh, A., Kumari, S., Kumar, P., Wasi, M., Mondal, A.K., Rudramurthy, S.M., Chakrabarti, A., Naseem A. Gaur, N.A., Gow, N.A.R. & Prasad, R. (2020). Sphingolipidomics of drug resistant *Candida auris* clinical isolates reveal 2 distinct sphingolipid species signatures. *Biochimica et Biophysica Acta* (in press).

Publication: Jehangir Cama and Stefano Pagliara: have just had a paper published [Microfluidic Single-Cell Phenotyping of the Activity of Peptide-Based Antimicrobials](#). This is published in *Polypeptide Materials* (pp237-53), part of the Methods in Molecular Biology book series and is

accessible online via SpringerLink (members of University of Exeter can access this by logging through Shibboleth/Athens).

Publication: Isobel Stanton, Aimee Murray, Lihong Zhang and Will Gaze, all of Exeter University, have authored a paper with Jason Snape from AstraZeneca, [Evolution of antibiotic resistance at low antibiotic concentrations including selection below the minimal selective concentration](#) Published in *communications biology*, this paper is complemented by a “behind the paper” blog, authored by Issy Stanton with Aimee Murray as a contributing author: [Do antibiotics excreted by humans and animals drive evolution of resistance in the environment?](#)

The paper attracted a lot of media attention, with Issy being interviewed on Time Radio and print news coverage including [The Times](#), [phys.org](#) and news sites in [Spain](#) and [Russia](#).

Radio 4 Podcast: Anne Leonard, Isobel Stanton and Will Gaze have recorded a podcast with Radio 4 as part of the *Costing the Earth* series. It is being aired on Tuesday 22 September (3:30pm) and Wednesday 23 September (10pm) and will be [available online](#) after the first airing.

External news and events

GW4 event: Multidisciplinary Approaches to AMR: Bench to Bedside and Beyond This free online symposium is organised by GW4 early career researchers. It is week-long event running from Monday 30 November to Friday 4 December 2020 and aims to address a ‘One Health’ approach to AMR. It will comprise interactive webinars from invited speakers and selected abstracts, themed discussion forums, an online poster session and an ‘Images of Research’ gallery.

Key details are:

- abstract submission deadline – Friday 25 September
- registration and image submission deadlines – Monday 16 November
- dates of event – Monday 30 November to Friday 4 December
- website for more information/registration – www.GW4AMR2020.wixsite.com/home

AMR in the Light of COVID-19 Noting that many bacterial and fungal infections that were previously considered treatable are no longer responding to the drugs designed to kill them, this four-part webinar series brings together global experts, including Dame Sally Davies as moderator at the first event, to discuss how the COVID-19 pandemic could reshape strategies for combating antimicrobial resistance around the world.

Key details are:

- The global movement of microorganisms – Thursday 24 September
- Prevention is stronger than a cure – Thursday 15 October
- Aiming in the dark – Thursday 5 November
- Responding to difficult-to-treat infections – Thursday 19 November
- website for more information/registration – <https://antimicrobialresistancefighters.org/webinars>

AMIS Antimicrobials in Society Online Panel Series 2020-21 Four thematic panels will bring together key insights from recent social research studies into the questions of (a) why antibiotics are being used in the ways that they are, in different settings and (b) what social researchers propose should be done to address this. The outcomes will be brought together in a report with infographics, followed by a half-day event on “Addressing Antibiotic Use”.

Key details are:

- Antibiotics as care – Wednesday 23 September
- Antibiotics beyond health facilities – Thursday 22 October
- Antibiotics beyond humans – Wednesday 18 November
- Antibiotic science, technology and infrastructures – Thursday 17 December
- Addressing Antibiotic Use Event – Wednesday 24 February 2021
- website for more information/registrations – <https://antimicrobialsinsociety.org/events/antibiotics-in-societies-panel-series-2020/>

Comment: Clare Chandler, Director of the Antimicrobial Resistance Centre at London School of Hygiene and Tropical Medicine has posted this reflection: [AMR publications have doubled in a decade – but what are our next steps?](#)

Spotlight on

Professor Ruth Garside is an Associate Professor in Evidence Synthesis. She is a social scientist whose research focuses on two key areas: producing systematic reviews and evidence maps on the interconnections between the environment and human health, and developing innovative methods for systematic reviews of complex interventions, with the aim of making these practitioner and policy-relevant. She has a particular interest in methods of synthesis for qualitative research.

Previous relevant research has included supervising a systematic review about the risks of acquiring infections from recreational use of seawater and the Beach Bums study which examined AMR carriage among surfers – both part of Dr Anne Leonard's PhD. Recent projects include mapping research evidence into the links between the ocean and human health relevant to Europe for the H2020 SOPHIE project and, for the GCRF funded Blue Communities project, mapping the research evidence examining the connections between marine conservation and human health and wellbeing. She is leading a NERC funded evidence map on the exposure and transmission of AMR to humans from the environment, and supporting a BBSRC systematic review about antimicrobial use and resistance in cattle. Her full profile can be viewed [here](#).



Dr Phil Mitchelmore is a Consultant Physician (Respiratory and General Internal Medicine) at the Royal Devon & Exeter Hospital and a Clinical Lecturer at the University of Exeter Medical School. His research and sub-specialty interests are focused on cystic fibrosis and bronchiectasis- respiratory conditions in which chronic airway infection is a hallmark. He currently sits on the British Thoracic Society's Special Advisory Group for Pulmonary Infection.

As a frequent prescriber of antibiotics and a contributor to national guidelines on the prolonged use of macrolides, he has an uneasy feeling as our knowledge of AMR grows. After a COVID-related pause in his research, Phil will be commencing projects looking into macrolide resistance in people with respiratory disease, as well as a potential alternative antimicrobial approach for the lung via the GW4 AMR Crucible. His full profile can be viewed [here](#).



Dr Aimee Murray is a NERC Industrial Innovation Fellow and proleptic lecturer at the University of Exeter Medical School, working across the European Centre for Environment and Human Health and the Environment (ECEHH) and the Environment and Sustainability Institute (ESI). Her research focuses on antimicrobial resistance in the environment, particularly how anthropogenic activities can promote the evolution of antimicrobial resistance (AMR) and affect microbial communities. Using metagenomics to complement molecular and classical microbiology techniques, she studies the evolution of AMR following exposure to antibiotics and other compounds with antimicrobial activity, such as biocides, non-antibiotic drugs and plant protection products. Whilst primarily a microbiologist, Aimee applies aspects of ecotoxicology and environmental risk assessment to her research to generate useful data for policy makers, industry and other stakeholders with the ambition to protect both the environment and human health. She is part of a longstanding collaboration with AstraZeneca and engages with members of Defra, the Environment Agency and the wastewater industry. Aimee is also a Board Member for the GW4 Water Security Alliance, Early Career Researcher Network representative for the ECEHH and group member of the College of Medicine and Health and Cornwall Equality, Diversity and Inclusion groups. Her full profile can be viewed [here](#).



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