



Internal news and events

AMR Creative Fellow

We are delighted to welcome investigative artist Simon Ryder as our new Creative Fellow. Simon's expertise ranges across fine art, graphics, video/photography, performance, sculpture and virtual reality, so there is much scope for us to work with him and develop something novel and exciting! Simon will introduce himself and talk about his work as one of the jargon-free seminar speakers in October. We will provide details on how you can take part in this project in the August newsletter. Simon will begin his fellowship in September and will be regularly blogging about it. To follow his AMR experience either subscribe to his [blog](#) or @tallman.walking on Instagram.



Calling all AMR-related PhD and post-docs!

We want to make sure that our AMR network supports members at all career levels. It would be great to discuss opportunities and ideas with PhD students or post-docs (ie those without permanent academic positions) from a range of disciplines. We would like to arrange a Teams meeting for this in the next few weeks – if you are a PhD student or post-doc and interested to help then please reply to this email and we'll find a time and date to suit everyone.

Please could all PIs ensure that their junior team members are signed up to the mailing list

AMR Network events

The next AMR Network event will be an expert panel on AMR in food systems and is scheduled to take place on Tuesday 15 September, 12:15pm-1:45pm. It will be online and a Teams invite will go out to all Network members later in the summer. A schedule of events for 2020/21 will be included in our August newsletter.

We plan to organise external speaker events in the autumn but if you would like to invite someone to give a webinar before then we would be happy to help you run the technical aspects of the webinar, and advertise it across the network. Please email us to discuss further.

Publication: Jehangir Cama, Margaritis Voliotis, Jeremy Metz, Ashley Smith, Jari Iannucci, Ulrich Keyser, Krasimira Tsaneva-Atanasova and Stefano Pagliara have had a paper published in the Royal

Society of Chemistry journal *Lab on a Chip*. The paper is titled "[Single-cell microfluidics facilitates the rapid quantification of antibiotic accumulation in Gram-negative bacteria](#)" and includes some of the work that Jehangir discussed in his talk for the Network in June. There is a University press release about the paper [here](#).

Publication: Ben Raymond of the European Centre for Environment and Human Health (ECEHH) is co-author in a paper that has recently been accepted for the journal *Antimicrobial Agents and Chemotherapy* (American Society for Microbiology). The paper is on "[Strong environment X genotype interactions determine the fitness costs of antibiotic resistance in vitro and in an insect model of infection](#)".

External news and events

Call for AMR project grant applications by the International Society for Antimicrobial Chemotherapy - more information [here](#).

Pharma and WHO announce AMR action fund: more than twenty of the world's largest pharmaceutical companies, in partnership with the WHO, have announced the creation of a US \$1 billion fund to boost biotech start-ups that are developing new antibiotics. The new AMR Action Fund will invest in companies that have already identified a promising antibacterial drug, funding from Phase 2-3 evaluations through to approval, with the goal of bringing two to four novel antibiotics to the market by the year 2030. More information on the AMR Action Fund is available [here](#).

External report Philip Taylor and Robert Reeder, "[Antibiotic use on crops in low and middle-income countries based on recommendations made by agricultural advisors](#)", published in CABI Agriculture and Bioscience (BMC).

Spotlight

Professor Henry Buller is Professor of More-than-Human Geography at Exeter working principally on the various socio-cultural, spatial and material inter-relationships between human and non-human animals. Having contributed over the last 20 years to the development of 'Animal Geographies' and to social science approaches to farm animal welfare science and policy, he recently led an interdisciplinary DEFRA funded study into understanding current antimicrobial use practice in livestock farming (2015). He is currently PI on the UKRI AMR Programme funded DIAL Project on diagnostic innovation and veterinary antimicrobial reduction in livestock systems in UK and Tanzania (2018-2021) and Co-I on an MRC funded project entitled 'One Health drivers of antimicrobial resistance in Thailand' and on the Swedish FORMAS funded project entitled 'Understanding antibiotic use decision-making'. His full profile can be viewed [here](#).



Dr Jane Usher is a Senior Scientist in the MRC Centre for Medical Mycology and a member of Professor Neil Gow's research team. She completed her PhD in Microbiology in Trinity College Dublin, Ireland examining the genome organisation of brewery strains of lager yeasts under high stress conditions and then went onto a postdoctoral position in Canada using systems biology approaches to develop yeast strains for biofuel production. She joined Biosciences in 2011 under the mentorship of Professor Ken Haynes focusing on the human fungal pathogen *Candida glabrata*. Her research focuses on examining the evolutionary effects of antifungal drugs and stress exposure on the genome and the role that these changes play in AMR. Her full profile can be viewed [here](#).



David Walker-Sünderhauf is a final-year PhD student at the Environment and Sustainability Institute, part of the European Centre for Environment and Human Health. With a background in immunology and bacterial evolutionary ecology, he is now working on AMR plasmids as part of the Gaze and the van Houte groups in Penryn. David is planning to incorporate flow cytometry as a faster way of counting particular bacterial cells into the coming stages of his work and is always keen for an exciting cloning or genetic engineering side-project. Throughout his PhD, he has engineered a broad host-range plasmid which utilises biotechnology CRISPR-Cas9 to remove antibiotic resistance plasmids from diverse bacterial species, and is now applying this methodology in bacterial communities. Essentially, this engineered plasmid works as a mobile CRISPR tool which can be transferred to a large diversity of bacteria. In these target bacteria, CRISPR-Cas9 removes antibiotic resistance plasmids by cutting their specific DNA sequences. In this way, bacteria can be resensitised to antibiotics. His full profile can be viewed [here](#).



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