UNIVERSITY OF EXETER AMR Network

Internal news and events

- **New NIHR fellow starting.** Dr Hazel Parker is just beginning a NIHR fellowship researching antimicrobial stewardship in hospital practice, with a focus on surgeons. Congratulations Hazel!
- **GW4 prioritising AMR.** GW4 are prioritising AMR as a key theme over the next two years. Professors Steve Hinchliffe, Adilia Warris and Will Gaze are representing Exeter on the GW4 AMR management board which is developing ideas for collaboration and has a budget in excess of £200k. Discussions are ongoing as to how this will be implemented – we will keep you informed!
- **AMR Network survey data.** Many thanks for those who have completed this. We have had 33 responses so far (out of 84 names on this list). Of those who completed the survey, we have 20 bioscientists, 1 clinician, 1 law researcher, 5 mathematicians, 5 social scientists and 1 theologian! Your information is really important for helping us make this network happen, so please complete this if you haven't already: https://www.surveymonkey.co.uk/r/CQZFPM7
- **Recent publication:** Zinc can counteract selection for ciprofloxacin resistance
    - *Michiel Vos, Louise Sibleyras, Lai Ka Lo, Elze Hesse, William Gaze & Uli Klümper*
    - *In FEMS Microbiology Letters: https://academic.oup.com/femsle/article/367/3/fnaa038/5762671*
    - *Summary: AMR is selected for at extremely low antibiotic concentrations in the laboratory, but in the environment antibiotics are usually present in complex mixtures of chemicals. Our new paper shows that when the antibiotic ciprofloxacin interacts with zinc it loses part of its efficacy. These findings highlight the importance of taking chemical interactions into account when considering their effect on AMR evolution in complex, environmental settings.*
- **Recent publication:** Raising awareness of antimicrobial resistance in rural aquaculture practice in Bangladesh through digital communications: a pilot study
    - *Kelly Thornber, Doina Huso, Muhammad Meezanur Rahman, Himangsu Biswas, Mohammad Habibur Rahman, Eric Brum & Charles R. Tyler*
    - *In Global Health Action: 10.1080/16549716.2020.1734735*
    - *Summary: This paper describes a preliminary study to test the effectiveness of using digital animation to communicate AMR awareness messages to aquaculture farmers in rural Bangladesh, and the scope for using social media to disseminate them.*

External news and events

- **Microbiology Society call for AMR case studies**: https://microbiologysociety.org/our-work/75th-anniversary-a-sustainable-future/call-for-case-studies.html
- **COVID-19 and AMR – what do we know so far?**: https://www.reactgroup.org/news-and-views/news-and-opinions/year-2020/covid-19-and-amr-what-do-we-know-so-far/
- **Online AMR courses**: If you're finding yourself with a bit of extra time at the moment, why not do an online AMR course?! FutureLearn and Coursera have online courses in a range of topics, including (amongst many others):
    - Bacterial Genomes: Antimicrobial Resistance in Bacterial Pathogens
    - The Role of Antifungal Stewardship
    - Tackling Antimicrobial Resistance: A Social Science Approach
    - TARGET Antibiotics – Prescribing in Primary Care
- **Highlighted external publication:** Antimicrobial resistance as a problem of values? Views from three continents

- *Alex Broom, Katherine Kenny, Barbara Prainsack & Jennifer Broom (2020)*
- *In Critical Public Health https://www.tandfonline.com/doi/full/10.1080/09581596.2020.1725444*

Spotlight

We think it would be nice to gradually introduce all of our members through these newsletters. Each week we'll introduce three members from different disciplines and career stages, but for this first week we thought it would be good to introduce our five AMR Network team members.

Professor Will Gaze is Professor of Microbiology at The European Centre for Environment and Human Health, part of the University of Exeter Medical School. He has over 15 years' experience of antimicrobial resistance research in farmed and natural environments, including major elements of environmental sampling and wide-ranging analytical methodologies. His research group consists of over 20 researchers funded by over £4 million in current and recent antimicrobial resistance (AMR) grants. He has worked with the UN Environmental Programme, the WHO, the European Food Safety Authority, Defra, pharmaceutical companies, and currently holds a Knowledge Exchange Fellowship with the Environment Agency. His full profile can be viewed here.

Prof Steve Hinchliffe is a Professor of Human Geography who works on social and material aspects of risk, culture and knowledge. He has worked on a number of AMR projects, and is currently involved in the £1.3 million Diagnostic Innovation and Livestock (DIAL) project to improve sustainable antibiotic usage in livestock. He is a Co-Director of the £4.2 million Wellcome Trust Centre for Cultures and Environments of Health,
an elected Fellow of the Academy of Social Sciences and sits on the Social Science Expert Group of Defra's Scientific Advisory Committee and Defra's Scientific Advisory Committee on Exotic Diseases. His profile can be viewed here.

Professor Rich Smith is inaugural Deputy Pro-Vice Chancellor for the University of Exeter Medical School, and Professor of Health Economics. He has worked on the economics of AMR for 25 years and has experience with a wide range of methods applied to various areas, from health outcome assessments to antibiotic resistance. He has received research funding in excess of £40m and has more than 200 publications. His full profile can be viewed here.

Dr Demelza Curnow provides project support to Professor Will Gaze's research group. Originally a mediaevalist, she particularly values interdisciplinary ways of working. Alongside her role with Exeter University, she is a Lead Quality Manager for the QAA. Her full profile can be viewed here.

Dr Kelly Thornber is an interdisciplinary post-doctoral researcher based in Biosciences and the Centre for Sustainable Aquaculture Futures. Her focus is on increasing the sustainability of aquaculture production in Bangladesh through improving biosecurity and promoting more prudent antibiotic usage. She is a strong proponent of integrating public engagement into research, and does a lot of outreach work with primary schools in the UK. Her full profile can be viewed here.

We welcome any feedback and news/ideas for the next newsletter: AMR-network@exeter.ac.uk