



Internal news and events

AMR Network Events 2020/21

Many thanks to [Dr Tobias Bergmiller](#), [Dr Kin Wing \(Ray\) Chan](#) and [Dr Matt Lloyd Jones](#) for presenting their GW4 Crucible Project Updates at the AMR Network event on 17 June, and also to [Dr Andrew Jones](#) for chairing the session. The presentations provoked a number of questions and comments in Chat, and it was great to hear that some of those attending then got in touch with each other subsequently to continue discussions.

Tuesday 20 July, 12.15pm – Interdisciplinary research grant applications

Our final event of this academic year will explore some of the challenges and frustrations involved in making interdisciplinary research grant applications, and hear from some of those who have navigated these funding calls successfully.

You can join the event [here](#). If you would like the calendar invite re-sent to you, please get in touch via AMR-Network@exeter.ac.uk

Events start at 12.15pm and finish by 1.45pm. If you can only attend part of the webinar, you are still very welcome to come along.

Please note: there is no Network event planned for August.

AMR Network Events Calendar 2021/22

We are currently working on the AMR Network events calendar for next academic year. To help us plan this, a short questionnaire will be shared with AMR Network members over the summer.

Other internal news and publications

Exploring antibiotic use practices in livestock production through a novel, game-based approach

A new citizen science study is trying to understand how easy it is to spot lameness in sheep by using a simulation game in order to help reduce the use of antibiotics in sheep farming and fight the global problem of antimicrobial resistance.



Lameness in sheep is mostly caused by the bacterial infections foot-rot and scald, and thought to account for two-thirds of antibiotic use in sheep-farming according to the National Animal Disease Information Service. Farmers need to use antibiotics to treat the main causes of lameness effectively, but extensive use of antibiotics increases the risk of bacteria building resistance to antibiotics.

At the centre of this study is the Lameness Game, a virtual simulation in which players are challenged with spotting the early signs of lameness in sheep as fast as they can by manoeuvring their way around a virtual flock and observing the sheep. In real life, if lameness can be spotted early, it can be treated early, reducing the need for repeated antibiotic doses as the disease progresses and/or spreads to other sheep. Better understanding of how people spot the early signs of lameness through this virtual experiment could therefore help identify strategies to improve early identification and reduce antibiotic use.

UK-based adults – both farmers and non-farmers – can now participate in the study by [playing the game and filling in a short questionnaire](#) before **30 June**.

The project is funded by a small GW4 Crucible seed funding grant from the GW4 Alliance. Led Dr Matt Lloyd Jones of the University of Exeter, the team includes Dr Robert Hughes (Bristol), Dr Aimee Murray (Exeter), Dr Max Barnish (Exeter) and Dr Nervo Verdezoto Dias (Cardiff). You can read more about it [here](#).

If you have project updates or resources that you think might be of interest to other members of the Network, we would be pleased to highlight them through this monthly newsletter – contact us on AMR-Network@exeter.ac.uk

Publications and other media and events

Publication: Olivia Goode, Ashley Smith, Urszula Łapińska, Rosemary Bamford, Zehra Kahveci, Georgina Glover, Erin Attrill, Alice Carr, Jeremy Metz, and Stefano Pagliara: [Heterologous Protein Expression Favors the Formation of Protein Aggregates in Persister and Viable but Nonculturable Bacteria](#) (*ACS Infectious Diseases*)

Publication: Professor Will Gaze is part of an international group that has recently published a report for the European Food Safety Authority on the [Role played by the environment in the emergence and spread of antimicrobial resistance \(AMR\) through the food chain](#) (*EFSA*)

Event: each month, the [Environment and Sustainability Institute \(ESI\)](#) has a featured academic of the month. In July, the featured academic will be [Professor Edze Westra](#), who is particularly well-known for his work on bacterial viruses (phages) and he will be speaking on 5 July. You can find out more about the ESI Featured Academic of the Month [here](#). Previous academics featured through this initiative have been [Dr Anne Leonard](#) and [Professor Stuart Townley](#), both of whom are members of the AMR Network, and you can also read more about them and view videos of their talks via the [website link](#).

Don't forget to use **#ExeterAMR**

GW4 AMR Alliance



Multidisciplinary Approaches to AMR: Pandemics, Practices and Innovation

There is still time to sign-up for the GW4 Alliance Early Career Researchers' Symposium.

Hosted by ECRs from the GW4 Alliance, this symposium is designed to facilitate networking between researchers working across different disciplines with an interest in antimicrobial resistance (AMR). This three-day event aims to create a space for discussion and knowledge exchange about the different realities and challenges of AMR. We will also reflect on how the COVID-19 pandemic has catalysed changes to research, society and public health policy and how these may influence the future of AMR. Over the three days, and through Zoom webinars, panel discussions and interactive online poster sessions, this symposium will aim to address the broad themes of:

- AMR and global health
- Practices and context
- Molecular innovations
- Mechanisms of AMR

- AMR and the environment
- Lessons learnt from COVID-19

Online event: **Monday 5 – Wednesday 7 July 2021**

Cost: **free to attend**

Registration deadline: **Monday 28 June 2021**

For more details and to register, please go to the [event website](#).

Launch of the GW4 AMR Alliance – calling all disciplines!

A reminder about the opportunity to sign-up to the GW4 AMR Alliance. We are keen to hear from researchers already working – or with an interest in working – [in areas related to](#) antimicrobial resistance. We welcome researchers working at any level and across all disciplines. We are particularly keen to encourage the participation of researchers working in social science, law, business, humanities and other under-represented disciplines.

How to join

Please sign up [here](#) to complete a short online registration form (this link can also be found on the [website](#) along with our Privacy Policy).

Many thanks and we look forward to you joining us. If you have any queries, please do contact the AMR Alliance team at amr@gw4.ac.uk



External news and events

Publications of interest

WHO has released the fourth [Global Antimicrobial Resistance and Use Surveillance System \(GLASS\) report](#).

Konstantinos Koutsoumanis, Ana Allende, Avelino Álvarez-Ordóñez, Declan Bolton, Sara Bover-Cid, Marianne Chemaly, Robert Davies, Alessandra De Cesare, Lieve Herman, Friederike Hilbert, Roland Lindqvist, Maarten Nauta, Luisa Peixe, Giuseppe Ru, Marion Simmons, Panagiotis Skandamis and Elisabetta Suffredini: [Role played by the environment in the emergence and spread of antimicrobial resistance \(AMR\) through the food chain](#). (*ESFA Journal*)

Ruilong Li, Longji Zhu, Kai Yang, Hongzhe Li, Yong-Guan Zhu, Li Cui: [Impact of Urbanization on Antibiotic Resistome in Different Microplastics: Evidence from a Large-Scale Whole River Analysis](#). (*ACS Publications*)

Irene Anna Lambraki, Shannon Elizabeth Majowicz, Elizabeth Jane Parmley, Didier Wernli, Anaïs Léger, Tiscar Graells, Melanie Cousins, Stephan Harbarth, Carolee Carson, Patrik Henriksson, Max Troell, Peter Søgaard Jørgensen
[Building Social-Ecological System Resilience to Tackle Antimicrobial Resistance Across the One Health Spectrum: Protocol for a Mixed Methods Study](#). (*JMIR Publications*)

Cherry Lim, Elizabeth A.Ashley, Raph L.Hamers, Paul Turner, Thomas Kesteman, Samuel Akech, Alejandra Corso, Mayfong Mayxay, Iruka N.Okeke, Direk Limmathurotsakul, H. Rogier vanDoorn: [Surveillance strategies using routine microbiology for antimicrobial resistance in low and middle-income countries](#). (*ScienceDirect*)

Spotlight on...

Dr Alessandra da Silva Dantas is a Postdoctoral Research Fellow working with Professor Neil Gow at the MRC Centre for Medical Mycology. She was awarded NIPS and ORSAS grants to undertake her PhD at Newcastle University for which she studied how the human fungal pathogen *Candida albicans* can survive stresses imposed by phagocytic cells. Following her PhD in Newcastle, she was awarded a CAPES Young Talent fellowship to teach undergraduate students and continue her research on fungal infections at Rio de Janeiro State University (Brazil). Her most current research is focused on understanding the molecular mechanisms that drive antifungal resistance in *C. albicans* and how antimicrobial resistance (AMR) alters virulence traits of this organism and disease progression. Her full profile can be viewed [here](#).



Emma Lamb is a Project Administrator providing support to Professor Will Gaze's AMR research group. She studied MA Writing, Nature and Place at the University of Exeter and was a member of the university's 'Big Dilemmas' interdisciplinary think tank. She is also an academic proofreader and member of the Chartered Institute for Editing and Proofreading. Her full profile can be viewed [here](#).



Dr Sumita Roy is a Postdoctoral Research Associate at the University of Exeter with Professor Nicholas Harmer. Currently, she is working on a research project trying to re-engineer sugar chains of bacteria that can be later used to develop a conjugate vaccine. For most of her research career, she has been looking into bacteria cell walls – which are mostly coated with sugars – and how these sugars help the bacteria to trick the human immune system. Bacterial infections are mostly caused by bacterial biofilm (clustering of bacteria together) and the sugar coating on the cell surface helps the bacteria to stick with others and plays an important role in antimicrobial drug resistance (AMR). Recently, she joined the GW4 AMR Alliance for the opportunity to become more involved in the different programmes and research going on regarding AMR, and how to tackle the challenges of AMR bacteria, a major threat to the world. Her full profile can be viewed [here](#).



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