

## AMR Network



### Content

- Internal news and events
- Spotlight on...
- GW4 AMR Alliance
- External news and events

## Internal news and events

### **New MSc in Pathogen Evolution starting September 2022**

A new MSc programme in Pathogen Evolution will be launched in 2022 at the Penryn campus. This programme will reflect the outstanding and world-class microbiology research ongoing at the Penryn campus and uses a unique evolutionary framework to understand pathogens. The COVID-19 pandemic has highlighted the immediate importance of training scientists in understanding the evolutionary processes that underlie pathogen infections, and this programme uniquely fills this void. The programme includes a research project at a Penryn microbiology research group of choice, and taught modules covering evolutionary microbiology, AMR transmission in microbial communities, AMR in the environment, bacteria-phage interactions, advanced statistics, new antimicrobial approaches, genomics of infectious diseases, and molecular and evolutionary aspects of host-pathogen interactions. For more information, [click here](#).



### **Whole-genome sequencing project reveals new information on *Candida glabrata***

Exeter's [MRC Centre for Medical Mycology](#) has conducted whole-genome sequencing for *Candida glabrata* at its laboratories. Using samples from hospitals across Scotland, the research will give scientists an advantage in treating this potentially fatal fungal infection. [The results have been published](#) in *Genetics*. For more information, [click here](#).

### **Medical School maps antibiotic resistance exposure and transmission to humans from the environment**

Research from the [University of Exeter's Medical School](#) has produced key evidence maps on antibiotic

resistance exposure and environmental transmission to humans. The maps collated evidence for (1) the transmission of antibiotic resistance from the natural environment to humans on a global scale and (2) the state of antibiotic resistance in the environment in the United Kingdom. Both maps can be used by policy makers to show the global and UK research landscapes, and provide an overview of the state of AMR in the environment and human health impacts of interacting with the environment. To read the publication, [click here](#).

### **Congratulations to...**

[Aimee Murray](#), who has been elected as an Ordinary Member of Council for the [British Society for Antimicrobial Chemotherapy](#).



[Edze Westra](#), who will lead a team to investigate how phages (viruses that affect bacteria) use "molecular communication" to coordinate infections with the support of a new €2m grant from the European Research Council (ERC).



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](mailto:AMR-Network@exeter.ac.uk)

### **Publications**

G. Shahi, M. Kumar, A. Skwarecki, **M. Edmondson**, A. Banerjee, **J. Usher**, **N. A. R. Gow**, S. Milewski, R. Prasad. [Fluconazole resistant \*Candida auris\* clinical isolates have increased levels of cell wall chitin](#)

[and increased susceptibility to a glucosamine-6-phosphate synthase inhibitor](#) (*The Cell Surface*)

**J. Cama**, K. Al Nahas, M. Fletcher, K. Hammond, M. G. Ryadnov, U.F. Keyser, **S. Pagliara**. [An ultrasensitive microfluidic approach reveals correlations between the physico-chemical and biological activity of experimental peptide antibiotics](#) (*Scientific Reports*)

J. Iwasaki, D. D. Lorimer, **M. Vivoli Vega**, E. A. Kibble, C. S. Peacock, J. Abendroth, S. Mayclin, D. M. Dranow, P. G. Pierce, D. Fox, M. Lewis, N. M. Bzdyl, S. S. Kristensen, T. J. J. Inglis, C. M. Kahler, C. S. Bond, A. Hasenkopf, F. Seufert, J. Schmitz, C. Erk, L. E. Marshall, A. E. Scott, I. H. Norville, P. J. Myler, U. Holzgrabe, **N. J. Harmer**, M. Sarkar-Tyson. [Broad-spectrum Activity of Macrophage Infectivity Potentiator Inhibitors against Gram-negative Bacteria and Leishmania major](#) (*Journal of Antimicrobial Chemotherapy*)

**J. A. Cañada**, **S. Sariola**, **A. Butcher**. [In critique of anthropocentrism: a more-than-human ethical framework for antimicrobial resistance](#) (*Medical Humanities*)

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



## Spotlight on...

**Angela Douglas** is our new Senior Research Administrator who will coordinate Exeter's administration for the GW4 AMR Alliance. She has a diverse background of business project support and also has a clinical background in healthcare. After finishing college she worked briefly as a Laboratory Technician for Unilever before spending 12 years working in the financial sector in the City of London. She then trained and qualified as a paramedic and worked in both Essex and

Cornwall. Her interests since moving to Cornwall have been mainly focussed around community health and wellbeing working in Cornwall's acute hospital trust and also the community hospitals providers

Outside of work, Angela is a keen sportswoman, competing in netball and rowing.



GW4 AMR Alliance



**ANTIMICROBIAL  
RESISTANCE  
ALLIANCE**

## **GW4 AMR Alliance**

The [GW4 AMR Alliance](#) continues to welcome new members from all disciplines and working at any level.

### **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](mailto:amr@gw4.ac.uk).

If you would like to find out more about the GW4 AMR Alliance and its aims, as well as hear about some of the research that is taking place across the four partner universities of Bath, Bristol Cardiff and Exeter, please have a look at the launch event [here](#).

### **Some places still available - Bid Development and Networking event, Cardiff, 6-7 April**

This April sees the AMR Alliance hold its next bid development and network event. Over 70 people have registered for the event, which takes place in Cardiff from 6-7 April. Some places are still available and open to all GW4 investigators eligible to lead on/apply for funding. To find out more, click [here](#).

### **GW4 AMR Alliance ECR and PGR Network**

The GW4 AMR Alliance ECR and PGR Network is working to develop its community through the Slack platform and is currently putting together an events programme to support networking across disciplines and all four university partners.

You can find out more about the ECR and PGR network, including key contacts at each of the four partner universities and information on the developing events programme, on the dedicated webpage [here](#). There is also a link to join the network on the same page.



## External news and events

### Funding Opportunities

#### MRC and JPIAMR trans-national call

[MRC](#) and [JPIAMR](#) have published a preannouncement of a trans-national call for Diagnostics and Surveillance Networks in AMR.

The aim of this call is to assemble networks of leading experts and stakeholders with an intent to facilitate the development, optimisation and use of diagnostic and surveillance tools, technologies and systems. Networks should work towards the conceptualisation of ideas in order to provide white papers, guidance documents and/or best practices/roadmaps and evidence frameworks to identify key questions to be addressed and/or potential solutions to overcome barriers to enhanced surveillance and advanced diagnostics to reduce the burden of AMR.

Each network coordinator will be able to apply for a maximum of 50,000 Euro for a 12- or 24-month period for support of its activities.

Further details have not yet been announced, but previous network calls have required the involvement of at least 15 representatives from organisations from at least 10 different countries, at least 3 of which are from 3 different countries participating in the call. Details of previous calls and networks funded can be found on the JPIAMR website.

#### Timeline

**12 April 2022** – Call opens

**28 April 2022** – Webinar for applicants

**14 June 2022** – Proposal deadline

## Sector news

The WHO's implementation handbook for national action plans on antimicrobial resistance [has now been published](#).

**Wales Farmer:** [Meat quality scheme tackles antibiotic use](#) (24 March)

**The Horse:** [Bacteria from horses give clues to antibiotic resistance](#) (25 March)

The London School of Hygiene and Tropical Medicine have announced a [new online short course in antimicrobial resistance](#).

## Sector events

The **British Society for Antimicrobial Chemotherapy** will hold its Spring Conference from **10-11 May 2022**. Programme and registration details to follow. For more details and to register, [click here](#).

**Wellcome Connecting Science - Antimicrobial Resistance - Genomes, Big Data and Emerging Technologies 2022 virtual conference, 27-29 April 2022.** An interactive forum of researchers, clinicians, computer scientists, and policymakers. Gain unique insights on pathogen genomics, epidemiology and surveillance, and the development of novel diagnostic and therapeutic tools. [Registration deadline: 19 April 2022](#).

**BSAC: Calling all Early Career Researchers!** Join BSAC for their in-person **Antibiotic Resistance and Mechanisms Workshop** from 12-13 May 2022. The workshop will offer members of the UK community researching mechanisms of antimicrobial resistance the opportunity to:

- Meet up and network with other researchers
- Explore and consolidate ideas
- Share knowledge between all grades of researchers, including PhD students and technicians.

Registration package includes: 2-day course, 1 night accommodation, all course meals plus networking dinner. Deadline for oral/poster abstracts: **1 April 2022**. [Click here for more info](#).

**ISME18 Abstract submission extended.** The 18th Symposium for the **International Society for Microbial Ecology** will be held in Lusane, Switzerland from **14-19 August 2022**. The conference is the front runner in the field of microbial ecology, with an average of around 1,750 international scientists that attend. Deadline for abstracts is now **1 April 2022**. [Click here for more info](#).

## Publications of interest

T. Bizimana, V. Kagisha, J. B. Nyandwi, A. K. Nyirimigabo, R Muganga, M. F. Mukanyangezi, E. Kayitare. [Investigation of the Quality of the 12 Most-Used Antibiotics Available in Retail Private Pharmacies in Rwanda](#) (*Antibiotics*)

I. A. Lambraki, M. Cousins, T. Graells, A. Léger, P. Henriksson, S. Harbarth, M. Troell, D. Wernli, P. S. Jørgensen, A. P. Desbois, C. A. Carson, E. J. Parmley, S. E. Majowicz. [Factors influencing antimicrobial resistance in the European food system and potential leverage points for intervention: A participatory, One Health study](#). (*PLoS One*)

Z. Peng, A. Maciel-Guerra, M. Baker, X. Zhang, Y. Hu, W. Wang, J. Rong, J. Zhang, N. Xue, P. Barrow, D. Renney, D. Stekel, P. Williams, L. Liu, J. Chen, F. Li, T. Dottorini. [Whole genome sequencing and gene sharing network analysis powered by machine learning identifies antibiotic resistance sharing between animals, humans and environment in livestock farming.](#) (*PLOS Computational Biology*)



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