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ANTIMICROBIAL RESISTANCE ALLIANCE

January 2026 Newsletter

Overview

Welcome to the January edition of the AMR Alliance Newsletter, featuring updates, opportunities, and achievements from our cross-institutional AMR research community. We hope you had a restful festive break and wish you all the best for the coming year.

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AMR Alliance News



Cardiff drug discovery research contributes to the understanding of the FDA approval of a new antibiotic to treat gonorrhoea

Nearly 40 years after fluoroquinolones were introduced in clinical practice, two new classes of gyrase/topoisomerase IV-targeted antibacterials have been approved by the US Food and Drug Agency (FDA) in December 2025 for use in humans to treat gonorrhoea. Gonorrhoea is an increasingly difficult sexually transmitted infection to treat owing to the

One of these classes is the spiropyrimidinetriones, with Zoliflodacin representing the first-in-class agent. A team at Cardiff University's [Medicine's Discovery Institute](#), led by Dr Ben Bax, contributed to this breakthrough and in 2023, the team published the [structure of Zoliflodacin](#).

As the team reports, Zoliflodacin, together with the unrelated novel bacterial topoisomerase inhibitor gepotidacin, are the first entirely novel chemical entity approved against Gram-negative bacteria in the 21st century. Zoliflodacin may also become the progenitor of a new, safer class of antibacterial drugs against other problematic Gram-negative bacteria.

For a hot off the press (January 2026) commentary by Neil Osheroff (Vanderbilt University, USA) on the mechanisms of these two new agents, please click [here](#)

GW4 AMR Alliance Cross Institutional Mentorship Scheme – Update



Feedback from mentors and mentees has now been analysed, and we are pleased to share that the GW4 AMR Alliance Cross-Institutional Mentorship Scheme has been very successful, with positive reflections from participants. Many highlighted the value of cross-institutional connections, protected time for reflection, and working towards clearly defined goals.

As the scheme moves into its closing phase, we recognise that mentoring relationships are intentionally time-limited and goal-focused. This stage provides an opportunity to reflect on progress, celebrate achievements, and consider next steps. Whether that is bringing the mentoring relationship to a close, re-contracting around a new focus, or continuing in a different professional capacity.

We will also be sharing a final report from this pilot mentorship scheme, bringing together key feedback and learning to inform future GW4 mentoring activity. We would like to thank all mentors and mentees for their time, openness, and commitment in making this scheme such a meaningful experience for the GW4 AMR community.

[Social media post](#)

Cardiff's Dr Leigh Sanyaolu Joins GW4's 10th Crucible 2026

We are pleased to share that [GW4 AMR Alliance member Leigh Sanyaolu](#) has

This year's cohort marks the 10th anniversary of the Crucible and brings together researchers from across disciplines to explore *Imagined Futures*.

Through his participation, Dr Sanyaolu aims to co-create strategies that address antimicrobial resistance and help safeguard future health. His involvement highlights the contribution of AMR research within wider cross-disciplinary leadership and innovation activity across GW4.



[Read more about 2026 Crucible](#)

GW4 Alliance News



**DEADLINE: 20
FEB 2026**

OPEN RESEARCH PRIZE

RECOGNISING BEST PRACTICE IN OPEN RESEARCH
£250 VOUCHER FOR THE BEST ENTRY IN
EACH CATEGORY!



GW4 Open Research Prize 2026 – Now Open!

Deadline for submissions: 20 February 2026

Open to individuals and teams across career stages. The GW4 Open Research Prize 2026 is now open for entries. The prize is part of GW4 Open Research Week (20-24 April) and celebrates projects and initiatives that promote transparency, accessibility, and reproducibility in research.

This year, there is a new dedicated Research Enablers category. It recognises individuals or teams who support the creation, analysis, and openness of research. Prizes are also available for Early Career Researchers and for the main Open Research Prize. Each category winner will receive a £250 voucher.

Members of the GW4 AMR community, including professional services and research support colleagues, are encouraged to consider applying or to share this opportunity across their networks. Shortlisted entrants will be invited to a virtual awards ceremony during Open Research Week.

[Read more and apply](#)



ARCS

Combating resistant infections to build resilient futures

What is the future of AMR surveillance in fragile settings?

What is the future of AMR surveillance in fragile settings?

Date: 25 February 2026, 08:30 - 17:30

Location: King's College London (Bush House Campus) and online (hybrid event)

Antimicrobial resistance (AMR) remains poorly understood at the points where fragility, conflict, and governance failure collide.

Join the [GW4-funded AMR in Conflict and Security \(ARCS\) community](#) at this hybrid event to hear leading voices from AMR, security, policy, data science, and the social sciences to explore this challenge and identify future solutions.

More information at the ARCS website below, where both free online and in-person tickets are available.

[ARCS website & registration](#)



TARGetAMR Annual Conference 2026 - Building the future of AMR Genomics

Date: 14 - 15 May 2026, The Studio, 7 Cannon St., Birmingham

Registration: Places are limited (please register early to secure your place)

The TARGetAMR Annual Conference brings together researchers and stakeholders in antimicrobial resistance (AMR) genomics to share insights, discuss emerging challenges, and explore future directions for the field. The event is free to attend, but in-person participation and registration for both days is required.

Further details and registration information

[Read more and register](#)

Spotlight on...

Neil Andrew Byrnes, Doctoral Candidate and Registered Pharmacist

Centre of Excellence in Water-Based Early-Warning Systems for Health Protection, University of Bath & School of Chemistry, Monash University

Neil Byrnes is a registered pharmacist with years of experience practising in the community pharmacy setting. He also has experience in healthcare governance as he served on the Board of Directors for a hospital, long-term care home, and family health team. Neil is currently completing his PhD in Chemistry through the joint global PhD programme offered by the University of Bath and Monash University (Australia).



Neil has successfully defended his thesis examination, and in the coming weeks, he will begin a new role as a Research Associate in One Health with the [Centre of Excellence in Water-based Early-Warning Systems for Health Protection](#) at the University of Bath. He aims to use his interdisciplinary background in pharmacy and analytical chemistry to advance research at the intersection of chemistry and public health.

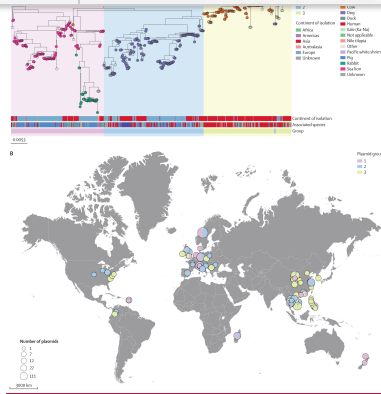
Neil's PhD research, conducted in collaboration with Bangor University, Cardiff University, and the Welsh Government, focused on completing a national-scale public health assessment of Wales through wastewater-based epidemiology with an emphasis on antimicrobial resistance (AMR). Through the analysis of antimicrobial residues in wastewater from hospitals and communities across Wales, Neil's research identified hospitals as potential hot spots for AMR emergence and demonstrated that they can be a significant source of antimicrobials in wastewater environments. This work highlighted both public health and environmental risks associated with antimicrobial residues, while supporting the prioritization of future interventions.

In his new role, Neil's interdisciplinary research, conducted as part of the Water Industry National Environment Programme, will assess environmental and public health risks from chemical contaminants, including human and veterinary antimicrobials, in the local water catchment. This work will inform and implement evidence-based interventions, monitor their effectiveness, and contribute to the development of a One Health Platform.

[Profile and contact](#)

If you would like to be featured in a future 'Spotlight on...', please email us at amr@gw4.ac.uk

Highlighted Publications



The image is taken from the article

of *Klebsiella pneumoniae* plasmids harbouring the *iuc3* virulence locus: a population genomic analysis

A major new study involving researchers from the Universities of Bath and Bristol was published in *The Lancet Microbe* in January. The study includes authors from the University of Bath; Ed Feil, Marjorie Gibbon, Keira Cozens, Samia Habib, and Lauren Cowley as well as Matthew Avison at the University of Bristol and Katy Turner (formerly at Bristol).

The paper presents an analysis of plasmids from *Klebsiella pneumoniae* recovered from human, animal, and environmental settings in Italy and Thailand. It shows that plasmids carrying antibiotic resistance genes can hybridise with those associated with virulence traits, a process known as convergence, which has been poorly characterised in One Health settings.

The findings also show that variation in these plasmids is structured by both geographical and ecological sources.

[Read more](#)

More Publications

Title: Emerging evidence for a multitude of mechanisms and factors that determine amphotericin B resistance in pathogenic fungi

Authors: Chanhon A, Gow NAR and Prasad R

Journal: *The Cell Surface*, 2026, 15:100168

🔗 Read the paper: <https://doi.org/10.1016/j.tcs.2026.100168>

Title: Glycan microarray analysis of *Candida*-related antibodies in human and mice sera guides biomarker discovery and vaccine development

Authors: Reuber EE, Hickey E, Pradhan A, Sprute R, Lingscheid T, Tober-Lau P, Leaves I, Stappers MHT, Kurth F, Bruno M, Netea MG, Sander LE, Cornely OA, Gow NAR, Brown AJP, Singh RK, Omoregbee-Leichnitz S, Sletten ET, Danglad-Flores J and Seeberger PH

Journal: *Proceedings of the National Academy of Sciences of the USA*, September 2025, 122(39):e2505340122

🔗 Read the paper: <https://doi.org/10.1073/pnas.2505340122>

Title: Strategies to improve antimicrobial stewardship in surgery: insights from an ethnographic study

Authors: Parker H, Day J, Frost J, Bethune R, Hollyman M, Hand K, Kajamaa A and Mattick K

Journal: *BMJ Open*, 2026, 16:e112333

🔗 Read the paper: <https://doi.org/10.1136/bmjopen-2025-112333>

Thanks for reading! The next AMR Alliance Newsletter will be sent out in **February**. If you would like to feature an event, research story, award or opportunity in this newsletter, please email amr@gw4.ac.uk



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