

Continuing to Fight a Growing Problem Using a Variety of Available Tools



Welcome to The AMR Global Health Academy Newsletter October 2025

The AMR Global Health Academy serves the global health professional and antimicrobial steward in low- and middle-income countries with a free online educational curriculum designed to advance AMR knowledge and best practices. Every month, via the Newsletter, we share important updates from the AMR field, especially as it relates to AMR testing, diagnostics, and surveillance. We feature news stories, articles, events, resources, and AMR champions battling the real-world AMR problems.

The AMR Academy has numerous courses and educational activities designed to empower AMR stewards, particularly global health professionals from LMICs. Check out this year's **AMR Problem Solving Case Study series** where we are focusing on community engagement to

drive action against AMR. (Materials available in English, French, Portuguese and Spanish.) **Case 3 coming soon!**

To join the AMR Global Health Academy, enroll in the Global Health Continuing Professional Development (GHCPD) free online AMR courses [here](#).

AMR GHCPD Faculty

Global Health Continuing Professional Development (GHCPD) faculty are global and regional experts in their field and drive the educational curriculum to ensure information is relevant, pertinent, and applicable to the needs of learners from low resource settings. Here we would like to profile some of our faculty members who generously continue to support the GHCPD educational platform.



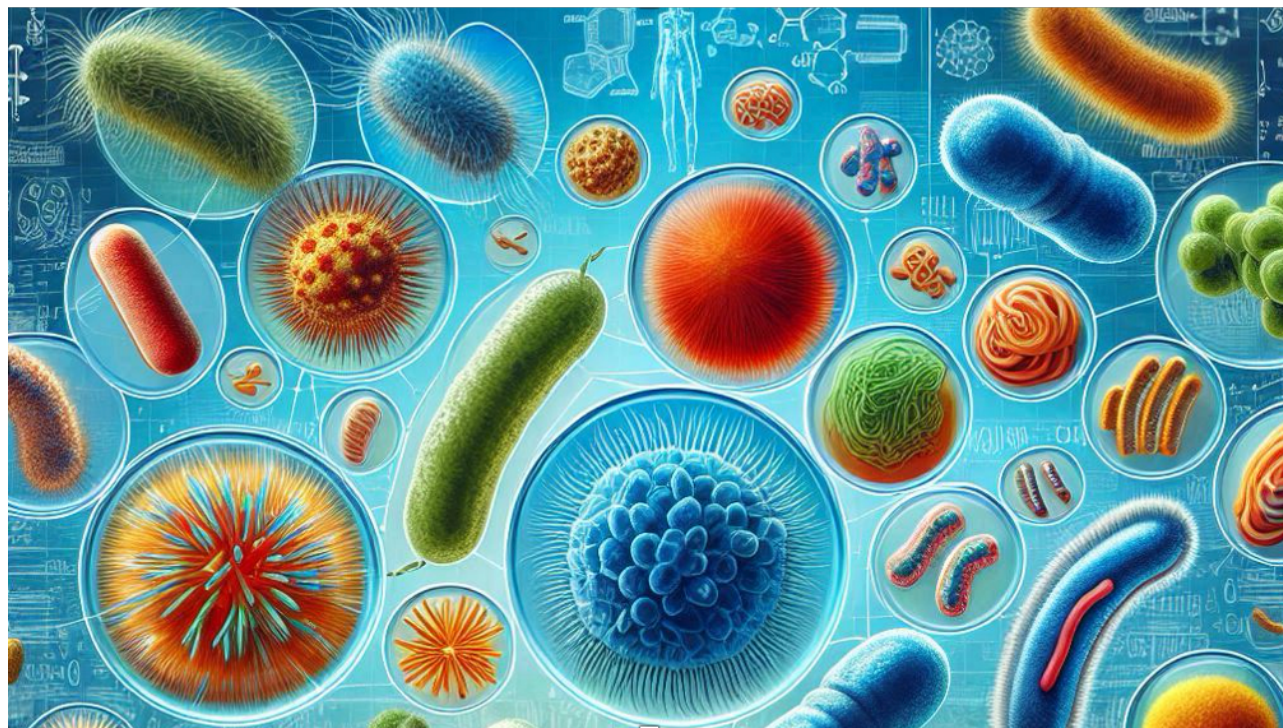
Dr. Luchuo Engelbert Bain is a physician, empirical bioethicist, and global health strategist advancing antimicrobial resistance (AMR) responses across One Health, community, and policy spheres. His research links laboratory evidence to community action and health-system change, with focus on AMR surveillance, stewardship, and climate–health integration in African settings.

He promotes ethics-driven, context-specific community engagement frameworks that build trust, counter misinformation, and embed stewardship at the point of care—from households to frontline facilities. His work applies gender and intersectionality lenses to ensure AMR interventions protect those most affected, including women caregivers and rural communities.

From November 2025, Dr. Bain will serve as Co-Chair of the Society for African Genomic Surveillance of Antimicrobial Resistance (SAGeSA), advancing equitable, Africa-led genomic surveillance and ethical data governance. A committed mentor and advocate for decolonizing global health, he leads [Global Health Otherwise](#), fostering African leadership, fair partnerships, and science communication that turns evidence into action.

News Story

Increasing Incidence of AMR Across a Network of US Laboratories

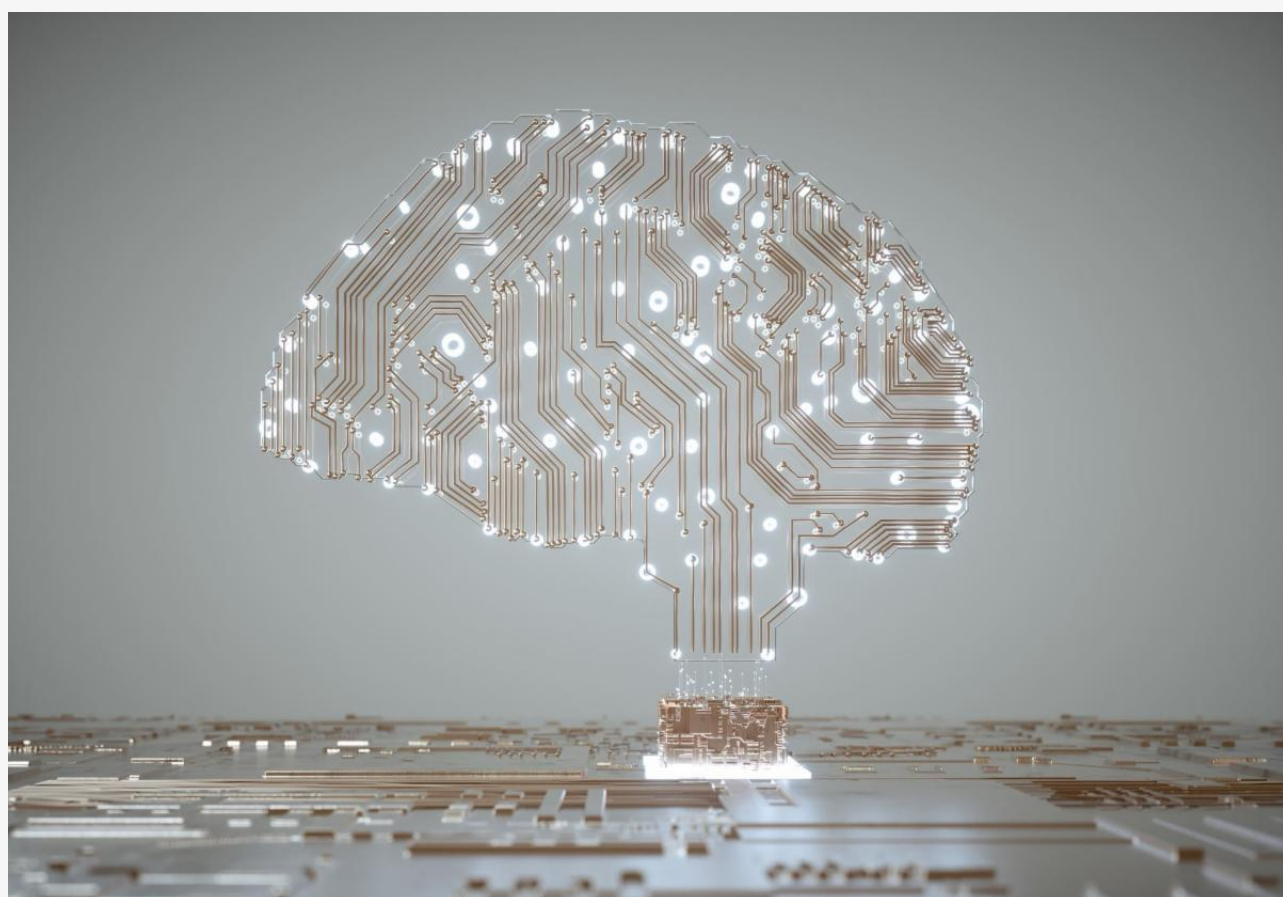


The incidence of multidrug-resistant bacterial pathogens has increased by 69% since 2019, according to a recent [report](#), [news story](#), and CDC response [here](#). The CDC's Antimicrobial Resistance Laboratory Network that includes data from 29 states found that the incidence of carbapenemase-producing carbapenem-resistant Enterobacterales rose substantially between 2019 and 2023. In particular, New Delhi metallo- β -lactamase (NDM)-producing carbapenem-resistant Enterobacterales have increased over 450%.

The lead author noted that these data further highlight the importance of access to diagnostics: "selecting the right treatment has never been more complicated, so it is vitally important that healthcare providers have access to testing to help them select the proper targeted therapies."

Article Spotlight

Utilizing Artificial Intelligence to Predict the Efficacy of New Antimicrobial Molecules



Two recent articles in *Nature Microbiology* took similar approaches to identify new potential antimicrobials through deep learning methods for predicting molecular interactions.

In the first [article](#), scientists pre-trained a protein large language model, ProteoGPT, to assemble a sequential pipeline to screen hundreds of millions of peptide sequences for potent antimicrobial activity and low cytotoxic risks.

In the second [article](#), scientists used molecular substructure- and deep learning-guided mechanism-of-action investigations to identify a bioactive small molecular, enterololin, with targeted activity against Enterobacteriaceae species.

Predicting molecular interactions and identifying promising future antimicrobial candidates through more efficient and extensive means could significantly improve drug discovery for AMR.

In Case You Missed It

This month, WHO released new reports on new tests and treatments in development for bacterial priority infections. See [here](#) for more. Importantly, the *Landscape analysis of commercially available and pipeline in vitro diagnostics for bacterial priority pathogens* was published and can be found [here](#).

The report identifies persistent diagnostic gaps, including:

- *the absence of multiplex platforms suitable for use in intermediate referral (level II) laboratories to identify bloodstream infections directly from whole blood without culture;*
- *insufficient access to biomarker tests (such as C-reactive protein and procalcitonin) to distinguish bacterial from viral infections; and*
- *limited simple, point-of-care diagnostic tools for primary and secondary care facilities.*

An interesting article related to these new reports can be found [here](#).

The European Union officially launched the Partnership on One Health Antimicrobial Resistance (OHAMR) – a 10-year program to tackle AMR. Over €250 million will be distributed for research and innovations against AMR. See the press release [here](#) and more information [here](#). The project is set to run until 2035.

bioMérieux and Henry Ford Health hosted a two-day AMR Summit only weeks ago to promote practical actions to address AMR and to accelerate diagnostics-driven stewardship. See [here](#) for more.

WHO launched an enhanced version of its Global Antimicrobial Resistance and Use Surveillance System (GLASS) dashboard. See [here](#) for more and the dashboard [here](#).

Don't Miss

IDWeek 2025, the annual meeting of the Infectious Diseases Society of America will be held 19-22 October 2025 in Georgia, USA. See [here](#) for details.

ASM Global Research Symposium on the One Health Approach to Antimicrobial Resistance (AMR), hosted in partnership with the Centre for Infectious Disease Research (CIDR) at the Indian Institute of Science (IISc) will be held 29-31 Oct 2025. See [here](#) for details.

The journal *Antibiotics* is planning for a special issue entitled, "Antibiotics: Utilization, Resistance, and Infection Prevention". The editors are inviting submissions for this special issue that addresses various aspects of AMR, including its mechanisms, transmission dynamics, and global impact. Manuscript submissions are due 31 October 2025. Please see [here](#) for more information.

World Antibiotic Awareness Week (WAAW) will be held 18-24 November 2025. This year's theme is "Act Now: Protect Our Present, Secure Our Future". As events are organized, details will be shared in upcoming newsletters. See an initial website from the WHO [here](#) as well as a campaign guide and materials. The US Antibiotic Awareness Week toolkit can be found [here](#).

The African Society for Laboratory Medicine is hosting a *Special Convention on Diagnostics* that will be focused on *Accelerating Diagnostic Innovation and Collaboration to Combat AMR and Advance Health Security in Africa* in Nairobi, Kenya from 25-27 November 2025. For more information see [here](#). To register, see [here](#).

The 10th AMR Conference 2026 will be held 3-4 March 2026 in Basel, Switzerland. Once available, details will be [here](#).

2026 Gordon Research Conference (GRC), *Antibacterials of Tomorrow to Combat the Global Threat of Antimicrobial Resistance*, will be held 8-13 March 2026 in Tuscany, Italy. See [here](#) for more details.

ESCMID Global 2026, the annual meeting of the European Society for Clinical Microbiology and Infectious Diseases, will be held 17-21 April 2026 in Munich, Germany. See [here](#) for more.

What's Next

As the threat and evolution of AMR continues to increase in the US and globally, researchers and health care providers must use every available tool in their arsenal. Identifying new potential tests and treatments, including through using machine-learning and artificial intelligence, could expedite development and, subsequently, access.

Creating AMR Awareness

The [GHCPD platform](#) presents research and innovations in diagnostics and health services, aligning them with real-world scenarios and practical applications.

Support for this initiative has been provided through an unrestricted educational grant from bioMérieux.