



The
**Fleming
Fund**



Fellow Symposium Proceedings

June 2024

Fellowship Scheme

Introduction



James Fairfax
Fellowship Scheme Coordinator

The fourth annual Fleming Fund Fellows Symposium focused on Expertise with Impact. The panels and presentations showcased and explored impact, emphasising the sustainability of impact across and beyond the Fellowship Scheme. Sessions included insights and lessons from Fellows, Mentors, and external guest speakers.

This year, we largely focused on Phase I Alumni Fellows, as we are currently onboarding our next cohorts of phase II Fellows to expand the Fellowship family. Over the two days of the Symposium, we reviewed the various achievements of the Phase I Fellows and how their Fellowships informed, educated, and influenced people, processes, and policies in their countries. Our video showcased some sustainable impacts Alumni Fellows have already made in tackling the global threat of antimicrobial resistance (AMR).

In her opening remark, Holly Rhyner-Jones, Head of the Fleming Fund at the UK Department of Health and Social Care (DHSC), emphasised the importance of Fellows as 'AMR champions'. She spoke about the plans for Phase II of the Fleming Fund, including some key strategic shifts. In particular, the progression from generating high-quality data, to data uptake by policymakers at national, regional, and global levels to drive impact

The Symposium survey run by Hilary Snaith at the University of Edinburgh kicked off the event to help engage all attendees from the beginning and gather some useful data, summarised by Roderick Card, (UK Animal and Plant Health Agency), at the end of the two days.

We heard about some impressive collaborative projects undertaken in Sri Lanka, Uganda, Senegal, and Papua New Guinea, highlighting the fantastic impact the Fellowship Scheme can have when Fellows link up together.

To end day one, Professor Antoine Andremont, from the Fleming Fund Expert Advisory Group, gave a thought-provoking talk on the meaning of One Health. Professor Andremont encouraged attendees to confront the 'spirit of our minds' to collaborate more creatively in addressing the challenges of AMR in an integrated and effective manner.

On day two, the sessions looked more to the future. Till Bachman from the University of Edinburgh hosted a great session on sustainability and responding to changing environments. The session generated insightful discussion among mentors on the panel (Adrian Muwonge, Birgitte Helwigh and Julian Nyamupachitu) and attendees – with the reminder, for fellowship training to be impactful, we must consider sustainability at each institutional level from the outset.

I outlined the plans for the imminent phase II Fellowships, which build upon the successes of phase I while incorporating some adaptations based on lessons learnt. We were also delighted to hear from Victoria Adetunji, Chair of the Fleming Fellowship Alumni Network Steering Committee, about how the Alumni Network intends to support Alumni Fellows and the wider Fellowship Scheme.

Elinam Segbefia, the Regional Fellowship Scheme Officer for West Africa, chaired a very engaging and energetic session on life beyond the Fellowship Scheme. In this session, we heard from Alumni Fellows in each region about how they continue to make contributions since finishing their Fellowship. The energy and impact of these Alumni Fellows are sure to inspire budding Phase II Fellows!

As Rod Card's wrap-up and survey review session showed, the Symposium was immensely informative, and inspiring. This was down to everyone who contributed their time, experience, and enthusiasm.

I would like to take this opportunity to thank the session Chairs, speakers, panellists, and, of course, all attendees for their continued dedication and commitment. This Symposium proved a timely point to reconnect with the fantastic global network we have all created.

As we embark on phase II of the Fleming Fund Fellowship Scheme, and welcome up to 200 new

Fellows across 20 countries, this Symposium provided an important reminder of just how powerful Fellowships can be in creating and sustaining change as we grapple with the challenges of AMR. The collective impact of the Fellowships is greater than the sum of its parts. I look forward to learning more at the next Symposium - planned for late 2024, so watch this space!

Symposium day one

08:05-08:15	Opening remarks – Holly Rhyner-Jones, Fleming Fund Fellowships Lead at the UK Department of Health and Social Care (DHSC).
08:15-08:20	Fleming Fund Phase I: Expertise with Impact – (short video featuring Alumni Fellows)
08:20-09:00	Interactive Session: Expertise with Impact Live Survey – Hilary Snaith, University of Edinburgh.
09:15-10:15	Collaborative Projects Presentations and Live Q&A – Panel featuring Alumni Fellows from Sri Lanka, Uganda, Senegal, and Papua New Guinea.
10:15-10:50	Plenary Talk: What One Health means: A practical Integration into the Overall AMR Response - Antoine Andremont, Fleming Fund Expert Advisory Group member.
10:50-11:00	Closing remarks – Toby Leslie, Technical Lead.

Opening Remarks



Holly Rhyner-Jones
DHSC

We have invested in this Scheme because we believe that you (the Fellows) are the ones who will make a real difference in turning the tide in the AMR pandemic. And you are making a real impact across the world. With the support of 122 mentors from different Host Institutions, 175 Fleming Fund Fellows in 19 countries across four regions - East and Southern Africa, West Africa, South Asia, and Southeast Asia - have completed their fellowships. As a result, 122 Beneficiary Institutions have gained significantly from your advanced skills and expertise.

The focus of this year's Symposium on Expertise with Impact will further explore the impact of these fellowships and reflect our ambitions for phase II, which is to ensure that we build on the work undertaken in the first phase to generate quality data and move towards using that data to have a lasting impact on tackling AMR.

This event is a wonderful opportunity to bring together Fleming Fund Alumni, Mentors, and other key stakeholders to network, learn from each other, and recognise all the amazing achievements that have come out from the Fellowship Scheme. Thank you all for your continued support of the Fleming Fund!



Fleming Fund Phase I – Expertise with impact (short video)

The Expertise with Impact short video highlights the achievements and post-Fellowship scheme reflections of eight Fleming Fund alumni Fellows from across Africa and Asia (Bangladesh, Kenya, Malawi, Nigeria, Papua New Guinea, and Tanzania).

Video link sent by WeTransfer.

Live survey results highlights



Moderated by Hilary Snaith,
University of Edinburgh

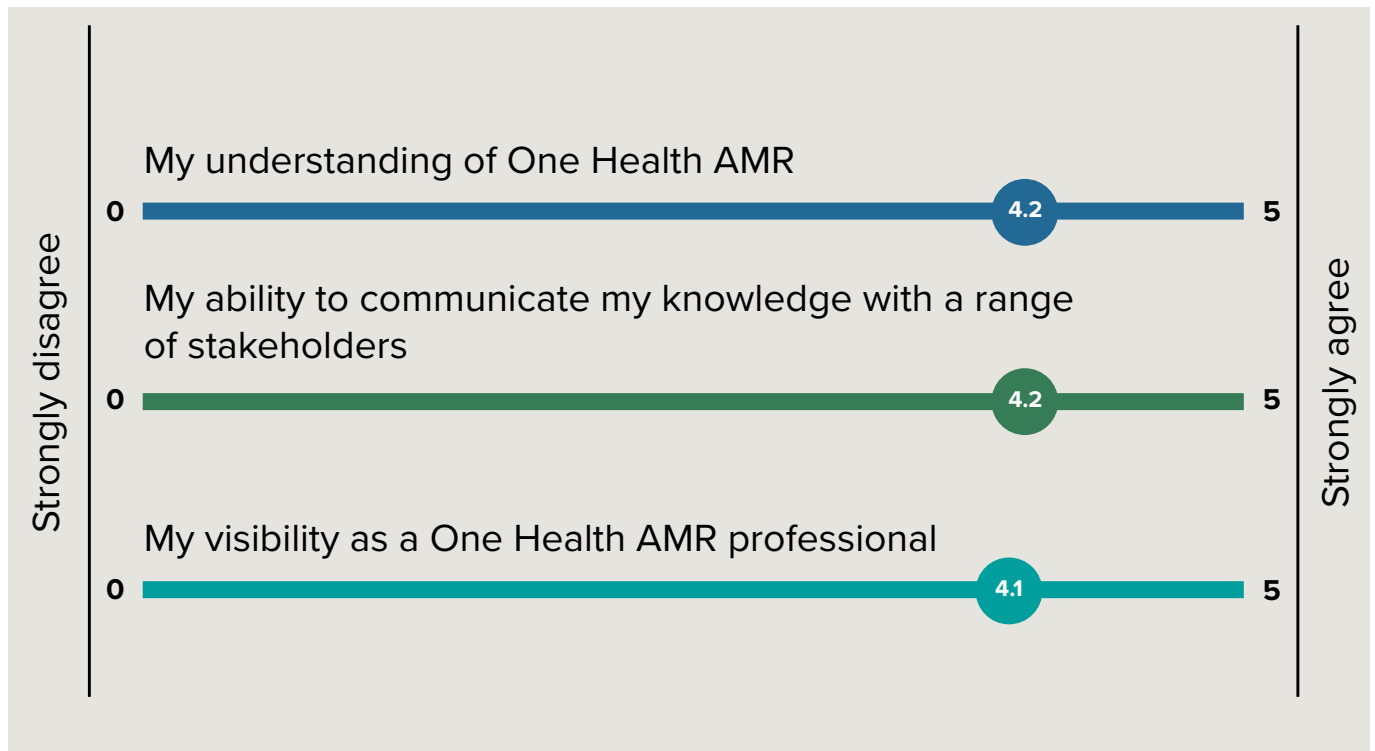
What do you think is most important to achieve sustained impact? Responses included:

- Political/Policy commitment.
- Including AMR in the school curriculum.
- Sustained funding.
- Local ownership.
- Continuous advocacy and sensitization of all stakeholders.
- Networking.

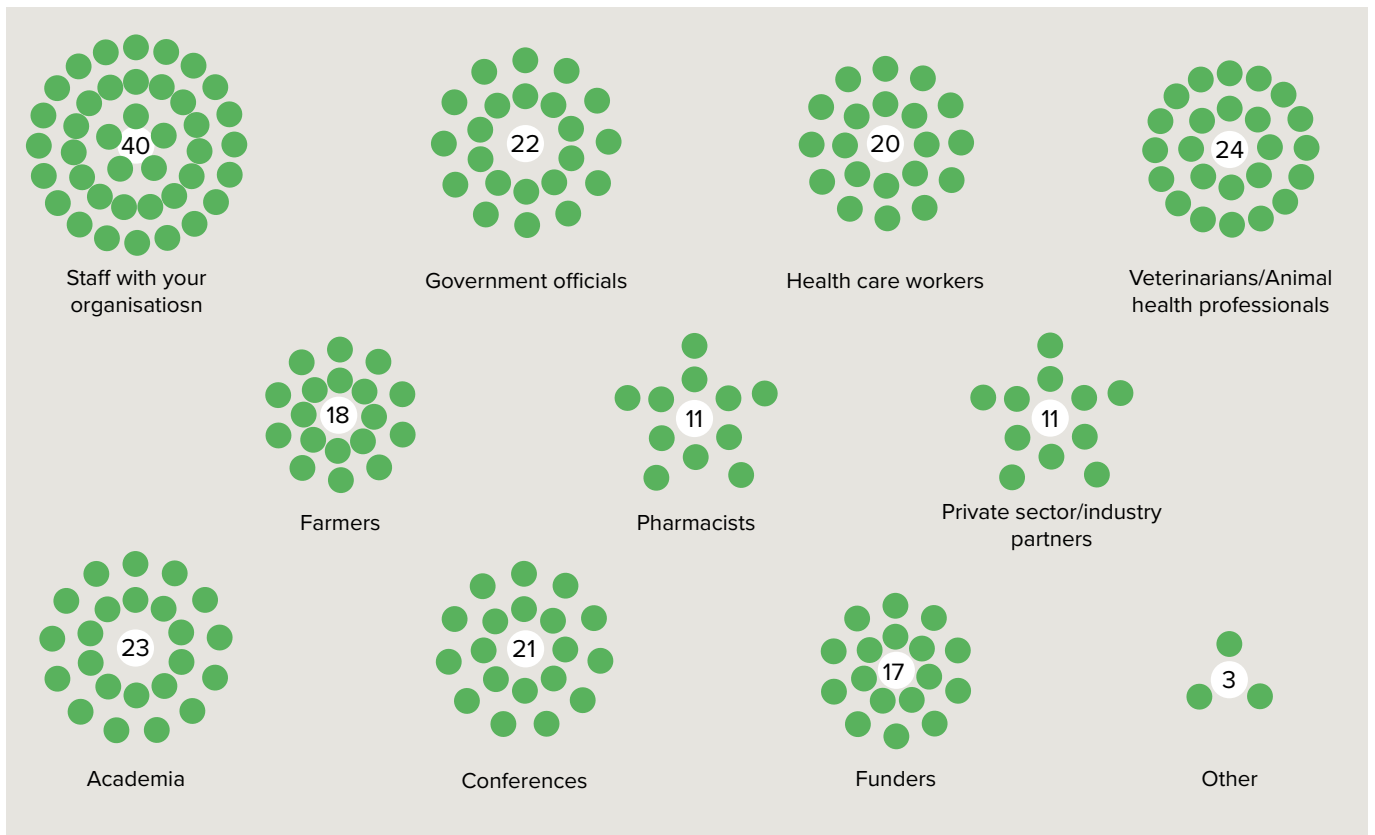
What do you think is the most exciting thing happening in the field of AMR? Responses included:

- The extension of AMR research in the aquaculture section in LMICs.
- Digital One Health approaches.
- Networking/collaboration between multiple stakeholders (One Health approach).
- Genomics and Metagenomics.
- Increased data production to inform policy.

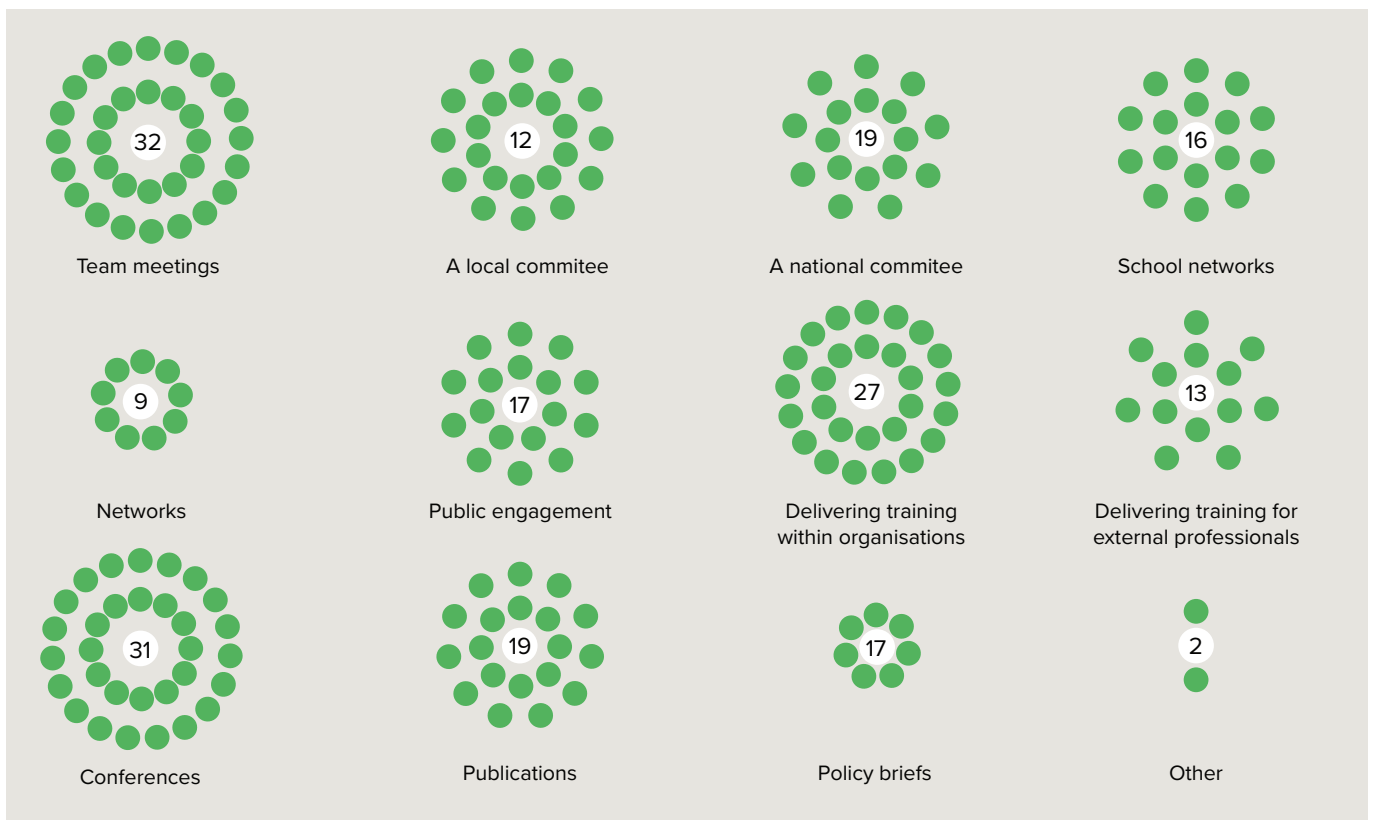
My participation in the Fellowship Scheme has strengthened ... (score 1 - lowest to 5 - highest).



With whom do you share learning from the Fellowship scheme? Choose all that apply.



How do you share best practice? Choose all that apply.



Collaborative projects presentations and live Q&A (panel)

Chairperson



Stanley Fenwick, Global Technical Lead in One Health – South Asia

Panel Members



Roshan Madalagama, Alumni Fellow, AMR Surveillance Animal Health, Sri Lanka

Project: Developing an AMR Surveillance Program for Escherichia coli under a One Health concept. Tanzania



Joel Bazira, Alumni Fellow, AMR Surveillance Human Health, Uganda

Project: Developing a One Health AMR surveillance System for Uganda: A Case Study in Jinja and Mbarara Districts.



Seynabou Lo, Alumni Fellow, AMR Laboratory Human Health, Senegal

Project: Characterization of the resistance of strains of E. coli of human and animal origin according to the One Health approach in the regions of Dakar and Saint-Louis.



Temas Ikanofi, Alumni Fellow, AMR Laboratory LQMS Human Health, Papua New Guinea

Project: To assess levels of knowledge within key AMR sectors in Papua New Guinea, and to address identified knowledge gaps Mbarara Districts.



Adrian Muwonge, Mentor, University of Edinburgh

Project: Developing a One Health AMR surveillance System for Uganda: A Case Study in Jinja and Mbarara Districts.

Collaborative Project one: Sri Lanka

Title: Developing an AMR Surveillance Programme for Escherichia coli (E. coli) under a One Health concept in Sri Lanka.

Project team

- Human Health Professional Fellows: Darshana Wickramasinghe, Muditha Hapudeniya, Nirmala Gunawardana.
- Animal Health Professional Fellows: Nimal Jayaweera, Chinthana Karunarathne, Kamalika Ubeyratne, Roshan Madalagama.
- Aquaculture Professional Fellow: Sujeewa Ariyawansa.

Key points highlighted by speaker, Roshan Madalagama

- Before this collaborative project, no One Health studies on AMR had been carried out in Sri Lanka, and AMR discussions were limited in the animal health sector.
- To establish and reiterate the importance of AMR programmes under a One Health framework, the project team investigated: patterns of antimicrobial susceptibility in E. coli across the human, animal (poultry); and aquaculture sectors; and antimicrobial use (AMU) and antimicrobial consumption (AMC) in the commercial broiler and aquatic sectors in Sri Lanka.
- The team found high levels of resistance to beta-lactam in humans, followed by resistance to amoxicillin / clavulanic acid, quinolone, and tetracycline. They also found high levels of resistance to erythromycin in non-human isolates, followed by tetracycline and beta-lactams.
- This collaborative project demonstrated the need for more surveillance across One Health sectors in Sri Lanka, and the need to harmonise efforts to improve AMU/AMC stewardship across the country.

Collaborative project two: Uganda

Title: Developing a One Health Antimicrobial Resistance Surveillance System for Uganda: A Case Study in Jinja and Mbarara Districts.

Project team

- Human Health Professional Fellows: Joel Bazira, William Olum, Ibrahim Mugerwa, Joseph Kungu.
- Animal Health Professional Fellows: Merab Acham, Michael Omodo.

Key points highlighted by speakers, Joel Bazira and Adrian Muwonge (Mentor):

- In Uganda, AMR is increasing at 2.8% per year across all clinical pathogens – this increase is linked to weak diagnostic stewardship in medical and veterinary facilities, and the availability of over-the-counter antibiotics through unregulated vendors.
- This collaborative project aimed to pilot a One Health surveillance plan in Uganda and compare patterns of AMR in human and animals in Jinja and Mbarara Districts.
- The project team collected samples from patients with bacteraemia in Jinja and Mbarara hospitals and linked them to samples from households/farms to track AMR transmission between communities and hospitals. Samples were assessed to measure the level of AMR in the bacteria present. The team also conducted a survey to assess antibiotic availability and control in farming households and drug stores.
- AMR was found to be most prevalent in clinical settings, with prevalence higher in Jinja Hospital than Mbarara Hospital. This was attributed to Mbarara Hospital being associated with better clinical training, a higher doctor-patient ratio, lower prescription rates, and lower AMC.
- In the communities, a high resistance to tigecycline was found. Tigecycline is a commonly used antibiotic in Uganda. The intention is to explore this phenomenon further in phase II.
- Based on this project, the team has developed a One Health surveillance strategy for Uganda and engaged multiple stakeholders in discussions to increase national AMR awareness.

Collaborative project three: Senegal

Title: Characterisation of the resistance of strains of *Escherichia coli* of human and animal origin according to the One Health approach in the regions of Dakar and Saint-Louis.

Project team

- Human Health Professional Fellows: Seynabou LO, Aïssatou Ahmet Niang.

- Animal Health Professional Fellows: Alpha Diallo, Gérôme Sambou, Anta Diagne, and Bissoume Sambe.

Key points highlighted by speaker, Seynabou Lo:

- Extended-spectrum beta-lactamase (ESBL) producing *E. coli* is a common cause of resistance to antibiotics across the human and animal health sectors. This project aimed to investigate the prevalence and genetic characterisation of ESBL-producing *E. coli* strains isolated from farms, poultry, slaughterhouses, and pregnant women in two regions of Senegal – Dakar and Saint Louis.
- A high prevalence of ESBL-*E. coli* in pregnant women (35.4% - 124/350), and in poultry (18% - 30 / 167) was found across both regions. Most of the ESBL-encoding genes were found to be from the CTX-M family.
- As a follow-up, the project team is currently carrying out whole genome sequencing to compare the genetic diversity of ESBL-*E. coli* circulating the animal and human health sectors of Senegal.

Collaborative project four: Papua New Guinea

Title: Assessing knowledge of the One Health concept in key sectors of Papua New Guinea.

Project team

- Human Health Professional Fellows: Temas Ikanofi, Judith Lizanne Nui, Gabriella Kepa Ak, May Lucy Varasmaite-Keket, Marjorie Tehina Elijah Baro.
- Animal Health Professional Fellows: Mathew Agive, Elaine Hevoho, Daniel Kelly.

Key points highlighted by speaker, Temas Ikanofi:

- The project in Papua New Guinea (PNG) aimed to assess the levels of knowledge of the One Health concept across the country's key sectors (including government departments, academic institutions, human/animal health practitioners, and private sector distributors) and across the country's four regions – Momase Region, Highlands Region, Southern Region, and Islands Region.
- Of 517 respondents (74% from the human health sector; and 54% from the animal health sector), the project team found that 53% of these professionals had no knowledge of the One Health concept and 25% had limited knowledge. Additionally, 79% were not aware of the memorandum of understanding

established to address AMR based on a One Health platform.

- The findings suggested that more professional education on One Health approaches is needed in PNG, with greater collaboration across relevant sectors. Based on the project's evidence, the team has made recommendations to key leaders and decision-makers in PNG. Team members continue to collaborate on educational campaigns to raise awareness on AMR and One Health themes.



Q&A with Speakers

Q: Collaborative Project three: You've shown the difficulty of communicating messages such as the One Health MOU and others. What specific activities have been identified to overcome this and to raise awareness?

Temas: To overcome the difficulty of people not being aware of or understanding the MOU, we have set up regular cross-sectional meetings. Currently, we have a monthly AMR meeting, which allows us to discuss across sectors and raise awareness of the MOU. The environment sector, the Department of Agriculture and Livestock, and the National Department of Health take part every month.

Q: Collaborative Project one: Can you elaborate on the detection of OXA-48? How common was it, and in what sample types?

Roshan: Yes, genotypically we found OXA-48 and CTXM, and that was from the sample from E. coli. The genetic study was done as a whole, not separately through human, aquaculture, or animal isolates. Although we found resistant genes for both in most of the isolates, unfortunately, it cannot be described as a percentage in humans, in poultry, or aquaculture. But yes, genotypically we found OXA-48 in E. coli isolates using PCR.farmers.

Q: Collaborative Project two: What was the biggest challenge in conducting this kind of multisectoral One Health project? And how did the group of Fellows overcome the problem?

Adrian: Generally, people coming from different sectors will have different views and perceptions of priority. Take the animal sector in Uganda – AMR, before global strategies, wasn't a priority to ministries within this sector. Therefore, there wasn't a dedicated budget to run such strategies. This is different in the human health sector where AMR is more of a priority. So, Fellows coming from the two sectors had different views on the level of priority of AMR.

Fortunately, as we went through the collaborative project process, greater alignment emerged. Additionally, there was far less investment in laboratories in the veterinary and environmental sectors, so there was a difference in what these two sectors could do in comparison to the human health sector – which is a challenge. The Fleming Fund has significantly invested in laboratories within these two sectors, which has brought them closer to alignment with the human health sector. So, the challenge was that we started on totally different footings, but fortunately, we aligned along the way.

Plenary talk: AMR from a One Health perspective



Professor Antoine Andremont,
Fleming Fund Expert Advisory Group
member

In this session, Professor Antoine Andremont shared insights on what One Health means, and how we can practically integrate this concept into the overall AMR response. Read on for a summary of his presentation below.

The need to take a One Health approach to AMR is obvious but putting it into practice proves difficult. Sectors that should collaborate instead work in silos due to variances in strategies and tools designed to manage AMR. Efforts towards tackling AMR with a One Health approach require a high level of specificity, contextualisation, and cohesion between sectors to be effective.

AMR is a natural phenomenon that existed well before the human ‘discovery’ of antibiotics - but the original phenomenon was highly localised and had no global consequences. Now, however, it is considered a global health threat due to the high levels of antibiotic production and use across human health (responsible for ~20% of antibiotic use), animal health (~70%), and agriculture (~10%) sectors.

Resistance can emerge in bacteria from different ecosystems, and the more antibiotics we produce and use, the greater the chances that this occurs. However, the emergence of a resistant bacteria is not always a public health concern – to ‘star’ as a public health concern, resistant bacteria must have three characteristics:

- Be included in the World Health Organization (WHO) list of bacterial pathogens for which resistance to antibiotics is a clinical problem.

- Can reach a human highly susceptible to infection.
- Have a route from the source to the susceptible host.

Transmission routes are multiple and highly variable, making AMR a highly complex phenomenon. Permutations of contextual factors can also add to this complexity. For example, in the rural settings of lower-income countries, population density can be low, but people often live in smaller houses with proximity to animals, and available health facilities can be crowded; conversely, in higher-income settings, population density can be high, but housing and health facilities are more spacious. Each type of setting therefore presents different combinations of opportunity and risk for AMR transmission.

Given this complexity, variability, and overall paucity of data, what can we do with the ‘One Health concept’ in our everyday work?

Observe three principles:

- No One Health recipe fits all sectors (there are differences in tools, techniques, and priorities across all sectors).
- Never hesitate to collaborate with colleagues from other sectors.
- ‘One Health’ is a spirit of mind – remember any action in one sector will have implications for other sectors.

“For AMR, you are never alone, the other sectors are never very far from what you do ... as you do good for your sector, so you also do good for the other sectors”.

Paper recommended by the Speaker: K E Arnold et al. (2024). The need for One Health systems-thinking approaches to understand multiscale dissemination of antimicrobial resistance - PubMed (nih.gov). This paper examines how modelling can be combined with One Health systems thinking to extrapolate from available data and explore the dynamics of AMR in the environment, and its global effects.

Q&A with Professor Andremont

Q: Would you recommend the integration of surveillance systems given One Health?

Antoine: I’m biased because I participated in the designing of the WHO Tricycle protocol – so yes, I think it’s a very good way to begin. But it’s

important to adapt it to other situations, and indeed, when you look at the protocol, you can see that there is a core protocol and then it proposes adding other protocols around it, to adapt to the local situation.

Q: One Health thinking extends beyond AMR. Can you extend the concept to other global health security concerns?

Antoine: One Health is being put forward by many people across many situations right now. It has become a politically correct term and is often used by those who do not know the difficulties of One Health. Emerging diseases and Covid-19 are increasingly linked to the One Health concept, but I think we must be careful not to use it as a gimmick without any real content.

Q: What challenges have you identified when trying to realise your three principles and how can we address these?

Adrian: The principles are easy to implement, because after all: if you continue to care about the solution for your sector (where you are trained, where you can be innovative, and where you can be effective), that is your primary task. But speaking with others across other sectors, is not difficult, especially when the Fleming Fund is organising collaborative events like this one. And third, take a 'spirit of mind'; it's not costly. So, I don't think it's too challenging to implement these three principles. It's a simple recipe!

Symposium Day 1: Closing remarks and reflections – Toby Leslie

Summary

It has been an astonishing time for AMR! We've seen a groundswell of funding support and political inputs, but there's still a huge amount to do.

It is our ambition to stabilise and limit the impact of AMR over the next five-ten years, and our collective approach needs to be data/evidence and surveillance driven, with a focus on sustainability. This is what we are working towards through the Fleming Fund, and what we have seen highlighted by the Alumni Fellows and our guest speakers throughout the symposium.

For day one of the Symposium, we had around 100 participants in attendance, which is testimony to the commitment of everyone involved in the Fellowship Scheme – Alumni Fellows, Host Institutions, and Mentors. Thank you all for your continued engagement post phase I of the Fellowship Scheme, and your brilliant contributions to the 2024 Symposium. It has been a source of great joy for me to see the opportunities we have tried to create come to fruition. We look forward to continuing working with you all in phase II.

Symposium day two

08:10-08:50	Panel Session: Sustainability – ways of working and responding to changing environments – Panel featuring Host Institution Mentors.
08:50-09:10	The Fleming Fund's Fellowship Scheme Phase II: What's next? – James Fairfax, Fellowship Scheme Coordinator, and Victoria Adetunji, Alumni Professional Fellow, AMR. Laboratory Animal Health, Nigeria, and Chair of the Fleming Fellowship Alumni Network Steering Committee.
09:25-10:15	Panel Session: Beyond the Fellowship Scheme – Panel featuring Alumni Fellows from Sri Lanka, Papua New Guinea, Tanzania, Nigeria, Ghana, Bangladesh, and Uganda.
10:15-10:55	Survey results and group discussion – Roderick Card, Animal and Plant Health Agency.
10:55-11:00	Closing Remarks – James Fairfax, Fellowship Scheme Coordinator.

Panel Session: Sustainability – ways of working and responding to changing environments

Chairperson



Till Bachmann, University of Edinburgh.

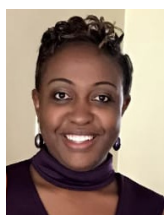
Panel Members



Adrian Muwonge,
University of
Edinburgh.



Birgitte Helwich,
Technical
University of
Denmark.



**Julian
Nyamupachitu**,
ReAct Africa.

Key Points highlighted by Julian Nyamupachitu:

We must engage with the dynamic nature of health systems/ecosystems. To effectively respond to change, key role-players need continuous training – especially in the collecting, monitoring, and use of data for decision-making. Additionally, clear communication strategies need to be established to engage stakeholders from the local community to national levels and prevent the spread of misinformation.

Key points highlighted by Adrian Muwonge:

Firstly, the value and cost-effectiveness of what we are doing must be articulated, based on optimisation and contextualisation. Secondly, we must also provide evidence-based feedback on progress by engaging with partners across sectors. Finally, to ensure our activities are relevant and meaningful, it is key that local ownership is established based on country-level needs assessments. These three processes are mutually reinforcing and should help promote the sustainability of impacts.

Key points highlighted by Birgitte Helwich:

The sustainability of the Fellowships themselves needs more focus. Mentors and Beneficiary Institutions need to support Fellowships within the framework of clear career plans. These should be articulated from the outset, to encourage Fellows to stay within their institutions and improve the return on investment. For example, when we work together on publications, this should form part of a strategy for advancing an agreed career path.

Q&A – discussion highlights:

Several themes were discussed during the discussion at the end of this session. These included the importance of engaging young people through training institutions and ensuring diversity across sectors/professions, settings, and countries.

“If we are not captivating our youth, then we are not creating a sustainable future, because they are the future. They are the key agents who have the potential to change the trajectory of the challenges we are facing here.”

Expanding on Birgitte’s comments about career plans, the panel discussed how this might benefit resource optimisation and the management of human resources. It was noted that career paths, publications, and research need to have policy and country relevance to create traction for sustainability.

The panel also considered the role of community engagement, emphasising that local community and religious leaders have a key role to play in responding to AMR evidence and mobilising communities for behaviour change. It was observed that those with lived experience are experts in identifying appropriate local responses. For example, Julian has been involved in a successful pilot in Zambia to engage church groups (especially women’s groups) on water, sanitation, and hygiene (WASH) themes and avoiding the misuse of medicines.

Finally, the panel shared insights on the potential benefits of point-of-care testing and new technologies for rapid diagnostics. The use of these technologies to inform clinical decision-making based on local epidemiology was highlighted as a useful method for optimising the use of resources in clinical settings.

The Fleming Fund's Fellowship Scheme Phase II: What's next?

Chairperson



James Fairfax,
Fellowship Scheme Coordinator

The Symposium provides an accessible platform for us to meet on an annual basis and supports fostering a community as AMR professionals.

- Phase II fellowships will be based on Country Investment Strategies that have been developed in dialogue with Fleming Fund countries; these aim to ensure alignment of approach and to avoid duplication of effort.
- There will typically be ten fellowships per country – eight Professional Fellowships and two Policy. The aim is to optimise the mix of laboratory, surveillance, practitioner, and policy-focused fellowships across One Health sectors.
- A more standardised workplan structure will be used to design all phase II Fellowships to ensure each Fellowship has an optimal mix of training, mentorship, visits to the Host Institution, Beneficiary Institution engagement, and opportunities for networking and participation in a collaborative project.
- Based on lessons learnt from phase I, the phase II Fellowships will be delivered as a single country cohort by an assigned Host Institution – to support coherence and collaboration of fellowships at the country level and help Host Institutions to leverage economies of scale.
- To enhance coordination between the three workstreams of the Fleming Fund (the Fellowship Scheme, Country Grants, and Regional Grants), other grantees will be encouraged to work collaboratively with each of the Host Institutions throughout phase II. Nevertheless, we continue to recognise that 'Fellowships are ultimately for Fellows' and are a result area in and of themselves.
- Time requirements for phase II Fellows have been reduced to ~20 % FTE - experience from phase I showed that this is a more achievable time commitment for Fellows who continue to have other professional commitments.

- Alumni Fellows will also have opportunities for support in phase II through a small budget held by Host Institutions. This continued engagement post-Fellowship will be informed by a 'Legacy Review' which includes an assessment of needs and opportunities.

Speaker



Victoria Adetunji,
Chair of Alumni Network Steering Committee .

The key objective of the Fleming Fund Alumni Network is to provide an ongoing support system for Alumni Fellows across One Health sectors. This includes sharing opportunities for further professional development and networking.

A new Steering Committee for the Alumni Network will be established. It is expected that this Committee will continue to curate training opportunities for Alumni Fellows; seek to raise the visibility of the Network; and facilitate the participation of Alumni Fellows in Fleming Fund webinars, journal clubs, symposia, and learning events.

What Fellows should expect in phase II:

- Access to budget allocations through their country's assigned Host Institution.
- Participation in a Legacy Review (conducted by Host Institutions).
- Access to regular webinars on topics of interest.
- An Alumni Spotlight section in the Petri Dish Newsletter highlighting Alumni stories, achievements, and lessons learnt – to submit a contribution please contact: FlemingFellowshipScheme@mottmac.com

Panel Session: Beyond the Fellowship Scheme

Chairperson



Elinam Segbefia, Regional Fellowship Scheme Officer.

Panel Members



Darshana Wickramasinghe, Alumni Fellow, AMR Surveillance, Human Health, Sri Lanka.



Gabriela Kepa Ak, Alumni Fellow, AMR Laboratory Fellow, Human Health, Papua New Guinea. Ghana



Kauke B. Zimbwe, Alumni Fellow, AMU/C Surveillance Fellow, Human Health, Tanzania. Nigeria



Mabel Aworh, Alumni Fellow, AMR Surveillance Fellow, Animal Health, Nigeria.



Nicholas Dayie, Alumni Fellow, AMR Laboratory Fellow, Human Health.



Sabrina Yesmin, Alumni Fellow, AMU/C Surveillance Fellow, Human Health.



Olum William Pjathim, Alumni Fellow, AMU Surveillance Fellow, Human Health.

Summaries

Sri Lanka: Darshana Wickramasinghe, Clinical Microbiologist; Surveillance Fellow, Human Health (HH); Host Institution (HI): University of Hong Kong; Beneficiary Institution (BI): Ministry of Health.

Following his Fellowship, Darshana has been tackling the problem of poor-quality samples (including blood culture, urine, and bone marrow samples) for antibiotic sensitivity testing in five District Hospitals. He observed that this is a significant issue that has implications for the quality and safety of patient care. To address this issue, he has updated standard operating procedures (SOPs) for hospital ward staff. He tried disseminating the SOPs through posters, site trainings, and demonstrations; however, he observed that uptake was limited due to high staff workloads and turnover. He found the most impactful and sustainable approach to improving the uptake of the SOPs required a ‘trainer of trainer’ approach. This focused on two nurses per ward and, wherever possible, local site-based diagnostic testing and analysis. Darshana’s approach has been published and the initiative has received a national award. The approach is now being scaled up by the Sri Lanka Ministry of Health.

Papua New Guinea: Gabriela Kepa Ak, Clinical Microbiologist; Laboratory Fellow, Human Health; HI: Doherty Institute, University of Melbourne; BI: Port Moresby General Hospital.

In 2019, Gabriella was the only clinical microbiologist in PNG and there was only one microbiology laboratory in the country. Her fellowship helped her establish baselines, generate antibiograms, develop antibiotic guidelines, and improve infection, prevention, and control (IPC) activities and prescribing practices. She was also involved in genotyping activities and has been able to publish her work and present at conferences. Since completing her Fellowship, Gabriella has continued these activities and extended them further. She believes her participation in the Fleming Fund’s Fellowship Scheme means she now works in a more supportive multidisciplinary environment, with collaborations across initiatives involving microbiology, IPC, and diagnostic stewardship that extend to other public health agencies. She is increasingly involved in more specialist intensive care unit (ICU) services and surveillance activities focusing on hospital-acquired infections. She acclaims her fellowship experience as “a fulfilling professional and personal journey”.

Tanzania: Kauke B. Zimbwe. Clinical Pharmacist; AMU/C Surveillance Fellow, Human Health; HI: African Society for Laboratory Medicine (ASLM); BI: The Benjamin Mkapa Hospital.

As a result of his Fellowship, Kauke has had opportunities to deliver conference presentations and to contribute to journal publications and papers. He has played a key role in research studies focusing on antibiotics like vancomycin, and erythromycin. These studies have led him to present a poster at a conference in the United States and develop a systematic review article. He has also played a leading role in developing hospital guidelines on antibiotic use, with contributions to improved diagnostic stewardship. He has recently been acting as a Mentor for the Commonwealth Pharmacist Association, and the International Vaccine Institute in Korea.

Nigeria: Mabel Aworh. AMR Surveillance Fellow, Animal Health; HI: The Technical University of Denmark (DTU); BI: Dept. of Veterinary and Pest Control Services, Federal Ministry of Agriculture and Food Security.

As a veterinarian and epidemiologist, Mabel rose to the position of Deputy Director in charge of AMR surveillance at her department. During her Fellowship, she contributed to an AMR situation analysis and One Health initiatives under the National Action Plan. She took a particular interest in the generation of data to inform policymaking. She also conducted research focusing on the animal–human interface at abattoirs in Nigeria – this study produced several recommendations for improving WASH practices and abattoir protocols. Following her Fellowship, she sought opportunities to deepen her understanding of genomics, AMR surveillance, and food safety. She was then invited to pursue postgraduate research at the College of Veterinary Medicine at the North Carolina State University. As a leader in her field, she is now a member of an Africa Centres for Disease Control and Prevention (CDC) AMR Working Group, where she recently contributed to the development of a roadmap and strategy for genomic surveillance of AMR in Africa. Mabel is now an academic journal editor and advises on the development of national guidelines for the Government of Nigeria. She says that her: “transition not only enriched my professional growth, but also enabled me to make meaningful impacts in global One Health and AMR.”

During the discussion, Mabel explained that, with the support of her Mentor (Rene Hendrickson) she has published papers on her research project. This, in turn, raised her profile as a researcher and led to her postgraduate studies in the USA. She encouraged other Fellows to showcase their work too: “So I’ll just continue to encourage us, let’s publish, publish, publish.”

Ghana: Nicholas Dayie, Laboratory Fellow, Human Health; HI: LSHTM; BI: University of Ghana Medical School.

The knowledge and skills acquired during the Fellowship Scheme led Nicholas to gain national recognition. He is now part of the national AMR platform focused on data analysis and evidence review to inform policy. He is also part of a select committee developing an integrated AMR/AMU/C surveillance framework across One Health sectors in Ghana. He continues to provide technical leadership on laboratory quality management services at the country’s National Reference Laboratory, including support for improved reporting on Global Antimicrobial Resistance and Use Surveillance System (GLASS) pathogens. Nicholas has also played a role in pioneering proficiency testing at Fleming Fund sites and is working collaboratively with the Fleming Fund country grantee to address challenges, such as laboratory reagent shortages.

Bangladesh: S.M. Sabrina Yesmin. Asst. Director. Directorate General of Drug Administration; AMU/C Surveillance Fellow, Human Health; HI: International Livestock Research Institute (ILRI); BI: Ministry of Health and Family Welfare.

As a Fleming Fellow, Sabrina made significant contributions to the development and implementation of the National Guideline on AMC surveillance in Bangladesh and reporting through the GLASS platform. She also contributed to research and policy decisions on the re-labelling of antibiotic medicines to promote their rational and safe use in Bangladesh. Since completing her Fellowship, she has been playing a senior leadership role in the newly established National Centre for AMC Surveillance in Bangladesh. She is also working on developing AMR awareness materials for children, including an AMR comic book and colouring book; additionally, she is advising on the incorporation of AMR issues into the secondary school curriculum. Sabrina is involved in the development of the National Guideline on Dispensing and Disposal of Antimicrobial Drugs in Bangladesh and in establishing AMC surveillance protocols for veterinary medicine. She is currently working on four publications.

During the discussion, Sabrina explained that the development of AMR educational materials for children was a systematic process based on formative surveys and product testing. The comics animation ‘Tinu Minu & Super Bug’ is proving popular, see: <https://youtu.be/To2wimQubJ0>. She emphasised that behaviour change must move beyond legal initiatives to address cultural norms - e.g., re. self-medication.



Uganda: Olum William Pjathim; Senior Pharmacist. AMU Surveillance Fellow, Human Health; University of Edinburgh. Bl: Ministry of Health.

As a result of his Fellowship, Olum has organised the establishment of an Antimicrobial Stewardship (AMS) Sub-committee to oversee and conduct AMS research activities at Jinja Hospital where he is based. Within hospital wards, he has contributed to the development of SOPs for prescribers to guide more rational use of antibiotics. He is regularly involved in Point Prevalence Surveys, including their piloting in outpatient settings. He also plays a significant role in overseeing his hospital's IPC measures, including local preparation of sanitisers to ensure continuity of supply. Olum is a member of a committee that is updating National Infection Control Guidelines and is now a member of national committees on AMU and One Health.

Survey results and group discussion

Chairperson



Roderick Card, Senior Scientist, UK Animal and Plant Health Agency.

Fellowships are intended to make an impact

by establishing Fellows as experts and leaders who can directly contribute to national AMR responses and raise the awareness of key stakeholders and decision-makers.

Fellowships have contributed to output and outcome level results against the Fleming Fund Theory of Change e.g., through ongoing contributions to improved laboratory systems and capacity, improved AMR awareness and governance, and improved data analysis and use for decision-making.

In reviewing the day one **MentiMeter survey**, and comparing results to some standard survey questions since 2021, it was observed the favourite words to sum up the fellowship experience were:

- Networking.
- Knowledge.
- Collaboration.

Other words submitted to the MentiMeter word cloud, included friendship and country ownership, which were seen as a very important outcome of the Fellowship Scheme .

Group discussion questions

- What does a sustained impact look like for you in your line of work?
- How can Fellows contribute to sustained impact?
- How do you communicate your impact?

These questions led to a lively discussion on ensuring impact translates into behaviour change, and data generation translates into data use and uptake. There was emphasis on publishing and disseminating data to inform evidence-based practice. It was also noted that the Petri Dish is a great vehicle for communicating across the Alumni Network and for Fellows to inform others about their publications.

Alumni Fellows are invited to contribute to the Petri Dish with their stories and achievements to submit a contribution, please contact:

FlemingFellowshipScheme@mottmac.com.

