

# The Petri Dish

# Welcome

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We are always looking for stories from Fellows and opportunities to share knowledge. If you have a story or articles you'd like featured in a future newsletter, please email us!



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[FlemingFund.org](http://FlemingFund.org)

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As promised in our September email, we have a double issue for you this month. We had a fabulous webinar on 1<sup>st</sup> September where we celebrated with the Fellows from Laos and Uganda on the completion of their Fellowships. A special guest from the Department of Health and Social Care spoke about what the Fellowships mean, and the contribution that Fellows are making against the global threat of AMR.

October's webinar featured presentations from two of our microbiologists and provided excellent practical advice. If you were not able to attend the webinar, don't forget that the recording is available. Contact your Regional Fellowship Scheme Officer or Adrienne Bernstein if you don't have access to the link.

Since the August issue we have brought on board seven new Fellows from Ghana (1) and Pakistan (6). Williams Adu from Ghana is our Policy Fellow in Animal Health, while from Pakistan we have Riasat Ullah (OH), Abdul Ali (HH), Atifa Mushtaq (HH) and Rehana Mailix (AQ) who are our Cohort II Professional Fellows with Ayesha Farooq (HH) and Muhammad Akram (AH) as our Policy Fellows.

It was exciting to receive two pieces for our **Field Notes** section. First, we take a look at the Fellowships through the eyes and experiences of the Fellows from Sri Lanka who reflect on what they have been able to achieve while working within the confines of the COVID-19 pandemic. The last piece is a photo-essay by Zambian Fellow Mpanga Kasonde showing recent activities including coping with work when conditions are not ideal.

As you can see we have a packed issue and I hope you enjoy what Fellows and others have presented for you.

With best wishes,



# Important Dates

**The 2021 Fleming Fellows Symposium – Wednesday 10<sup>th</sup> - Thursday 11<sup>th</sup> November** - The Fellows Symposium runs for two half-day sessions and is an event for Fellows and Host Institution teams to virtually meet, connect and share ideas.

Dame Sally Davies, UK Special Envoy on AMR, will be delivering the keynote address on the second day. The programme will also include poster presentations and sessions on impact, sustainability, solutions in action, Policy Fellowships and mentor-Fellow collaboration.

[Register](#) in advance to receive links to attend the Symposium, programme updates, and networking information.

**ASLM 2021 Conference – 15<sup>th</sup> - 18<sup>th</sup> November** - This dynamic virtual conference from the African Society for Laboratory Medicine will explore the theme “Responding to outbreaks through resilient laboratory systems: Lessons learnt from the COVID-19 pandemic”. The four-day event will feature plenary talks, symposium sessions and round table discussions. Find out more and register [HERE](#).

**WHO Global Evidence-to-Policy (E2P) Summit – 15<sup>th</sup> - 17<sup>th</sup> November**  
The COVID-19 pandemic marks a turning point for evidence-informed health decision-making, and poses unprecedented challenges to translating a rapidly evolving body of evidence into tangible response efforts. Join global experts and stakeholders at the WHO Global E2P Summit to capitalise on lessons learnt during the pandemic. Click [HERE](#) for further details and registration information.

## ARE YOU ON THE FLEMING FUND MAILING LIST?

The Fleming Fund sends out monthly newsletters with more information on external events and achievements from across the programme, including Country and Regional Grants.

If you are not receiving these emails, you can sign up using [THIS FORM](#).

# October Webinar Recap

Presentations at the October webinar captured areas of technical interest and Fellowship management. First, Claire Gordon, lead clinical microbiologist for the Fleming Fund, discussed *Taking action against drug resistance for a healthier world*. Claire focused on the role of clinicians in tackling AMR, hurdles when working in surveillance, and responded to common myths.

Raghu Sriram, regional microbiologist on the Fleming Fund South Asia Team also delivered a presentation on *AMR surveillance during COVID-19*. Raghu looked at the impact of COVID-19 on AMR in both hospital and community settings and shared recommendations on policy and communication.

In addition to the talks from Raghu and Claire, the Fellowship Team provided an overview of the quarterly reporting process, with attention on some frequent reporting mistakes and how these can be solved:

How to: Fellowship Reporting	
<b>DON'T</b> reschedule incomplete activities if a deliverable continues into the next quarter	<b>DO</b> report an incomplete activity as a 'no' but leave the rescheduling column blank if the deliverable is already scheduled to continue
<b>DON'T</b> record an activity has been completed when there is more work to be done (and the deliverable is not scheduled to continue)	<b>DO</b> record an activity as incomplete and explain why the deliverable was not achieved using the drop down menus and appropriate column.
<b>DON'T</b> use reasons such as '6 Travel' or '1 Fellow unavailable' for activities that were not completed due to COVID-related barriers.	<b>DO</b> use '5 Natural Disaster' for any activity that is not complete due to COVID-19.
<p>Also,</p> <ul style="list-style-type: none"> <li>• Ensure the right number of 'Yes', 'No', and incomplete deliverable reasons is correctly reflected in the data below each quarter in Form A.</li> <li>• Follow the instructions on Form B to include information in the relevant cells (for example, only list training that the Host Institution has provided under section 3a and training provided by the Fellow under section 3b).</li> </ul>	

# September Webinar Recap

The webinar held in September was a special occasion to celebrate the work of the Laos and Uganda Cohort I Professional Fellows who completed their activities as part of the Fleming Fund.

The Fellows presented their individual work and collaborative projects. In Uganda, Fellows developed a One Health dataset and, in Laos, projects covered a range of topics including the economic burden of AMR, and antimicrobial consumption in both humans and animals.

Mentors from Host Institutions, Mahidol University and the University of Edinburgh, spoke at the webinar and reflected on the Fellows' hard work, dedication and achievements over the past two years.

To close the webinar, Anna Wechsberg, the International Director of the UK Department of Health and Social Care, delivered a congratulatory address for the Fellows.

As Anna reminded all attendees, completing the Fellowships in normal times is a tremendous achievement, but even more so during the pandemic; "It's the work that you're doing that's really going to make a difference in the medium and longer term, so we are enormously grateful and privileged to support you through the Fleming Fund,"

"We all know the threat that's caused by AMR," said Anna, "and we've seen over the past 18 months what a difficult-to-treat infection can do both in terms of human lives and economic costs, and it's devastating. So now more than ever we need action and exactly the kind of work that you have all been doing."

## Laos Cohort I Fellows:

- Souphatsone Houatthongkham: LA01 AMR Surveillance, Human Health
- Bouakham Vannachone: LA02 AMR Surveillance, Human Health
- Khambai Noilath: LA04 Laboratory, Human Health
- Khamloune Choumlivong: LA06 AMU Surveillance, Human Health
- Intha Phouangsouvanh: LA07 AMU Surveillance, Animal Health

## Uganda Cohort I Fellows:

- Joel Bazira: UG01 AMR Surveillance, Human Health
- Merab Acham: UG02 AMR Surveillance, Animal Health
- Ibrahim Mugerwa: UG03 AMR Laboratory, Human Health
- Michael Omodo: UG04 AMR Laboratory, Animal Health
- William Olum: UG05 AMU Surveillance, Human Health
- Joseph Kungu: UG06 AMU Surveillance, Animal Health

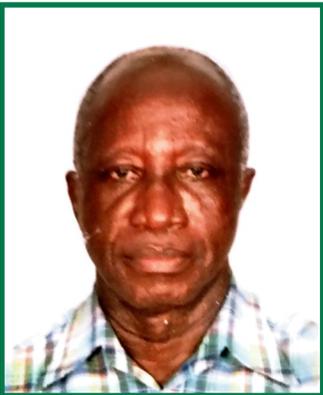


From top to bottom: Laos Fellows with the Fleming Fund Team in Vientiane; Uganda Fellows visiting the University of Edinburgh (photos from Eileen Chappell)

# Welcome New Fleming Fund Fellows

This month, we are welcoming new Cohort II and Policy Fellows from Pakistan, as well as a Policy Fellow from Ghana. These Fellows have all taken part in Orientation Meetings with their Host Institutions and are currently working with mentors on developing workplans. You can learn more about their professional backgrounds and motivation to join the Fellowship Scheme in the biographies below.

**Join us in welcoming William, Riasat, Abdul, Atifa, Rehana, Ayesha and Muhammad.**



**William Kuma Adu – AMR Advocacy and Resource Mobilisation Policy, Animal Health (Ghana)**

William Kuma Adu is a skilled and enthusiastic professional with over 30 years of experience managing all facets of the animal health sector, from the local to the national level. He oversees public health, human resource development, budgeting and surveillance. He also chairs a policy and legal reform advocacy group for better veterinary governance, inline with OIE standards.

A veterinary surgeon with an MSc in veterinary science from the Frunze Institute in Russia, William was Chief Veterinary Officer and a Director of Veterinary Services in Ghana. In this role, he led the formation of policies to improve animal health environments and increase livestock and poultry productivity.

In a previous role as a district veterinary officer in the Dormaa municipality – the poultry hub of Ghana – William witnessed misuse of antimicrobials in farms on a large scale. This experience has made him a passionate advocate for the prudent use of antimicrobials.

William’s varied background in animal health delivery and advocacy provides him with a foundation to venture into policy consultation. He also looks to collaborate with stakeholders, parliamentary groups and government agencies to reform legislation into veterinary governance. He hopes that this Fellowship will sharpen his skills required for advocacy and stakeholder engagement to bring issues on AMU and AMR to the attention of policy makers.



**Riasat Ullah – AMR Practice, One Health (Pakistan)**

I am Riasat Wasee Ullah. By profession, I am a veterinarian and have a master’s in microbiology. Presently I work as the assistant animal husbandry commissioner (AAHC) in the Federal Ministry of National Food Security and Research within the government of Pakistan. In my current role, I am an integral part of the national veterinary services which formulate, implement and coordinate different policies related to the animal health sector. This includes

zoonosis and AMR at the national level. I am also a member of AMR Technical Advisory Group (TAG) for South Asia.

Since 2019, I have been involved in the risk analysis of major animal diseases in Pakistan in coordination with other stakeholders including the Ministry of Health and the Ministry of Climate Change. This analysis has involved organisations such as FAO, USAID, the US CDC, OIE, and others. As AAHC, I am involved in a surveillance pilot project for healthy food animals, and a point prevalence survey for AMU in selected production systems of large ruminants and broilers.

Since November 2019, I have worked on the Fleming Fund Pakistan Country Grant in coordination with the government, national referral laboratories, and provincial livestock departments. Official focal persons for AMR and AMU were nominated through the Country Grant and an AMU workshop was conducted with support from the Fleming Fund and the OIE.

Through this Fellowship I expect to lobby and advocate for policy makers on AMR/AMU programmes. I also plan to operationalise a One Health coordination mechanism and advance risk communications for AMR and AMU.

# Welcome New Fellows

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**Abdul Ahad Laique Ali – Bioinformatics and Sequencing, Human Health (Pakistan)**

I am a laboratory scientist with experience in microbiology, virology and bioinformatics. I work in the Department of Public Health Laboratories division of the National Institute of Health (NIH), a national reference lab in Pakistan for antimicrobial resistance and genomic surveillance of pathogens.

Motivated by a desire to dig into microbial genomics to decipher AMR, I completed my master's degree in bioinformatics through the National Centre for Bioinformatics at Quaid-e-Azam University Islamabad.

My main interest as a scientist is to work on the molecular detection of pathogens and genomic surveillance of infectious diseases. I am trained in LQMS as well as external quality assurance programme management, and have been assigned to work on a national external quality assurance scheme for Pakistan.

I am eager to learn different data analysis tools to understand AMR from whole-genome sequencing (WGS) data. Analysing entire pathogen genomes through WGS could provide unprecedented opportunities in discriminating highly related lineages of bacteria and revolutionise outbreak analysis.

This Bioinformatics Fellowship is a great opportunity to improve my data analysis skills to investigate WGS data generated in Pakistan. I plan to closely follow AMR, specifically how it evolves and impacts clinical patient management in Pakistan. It is my honour to be selected for this Fellowship, as it will help me achieve my goal of serving humanity at large.

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**Atifa Mushtaq – AMU/C Surveillance, Human Health (Pakistan)**

My name is Atifa Mushtaq and I am a pharmacist currently working as a scientist in the pharmaceutical laboratory at the National Institute of Health, Islamabad. I hold a master's degree in pharmacology. My academic research, which was later published, evaluated antibiotic dosages in the Pakistani population and the safe and rational use of antibiotics.



At the start of my career as a hospital pharmacist, I worked on medical dispensing and prescription and procurement of antibiotics. I also observed irrational prescribing practices in this role. Since 2019, I have been a speaker at AMR awareness sessions which have been organised to meet objectives of National AMR Action Plan for Pakistan.

AMR is now one of the gravest threats to human health in the history of medicine. As a Fleming Fellow, I am eager to gain new experiences. I am confident that with my qualifications, management skills, and support from other Fellows, I will be able to contribute to combatting the burden of AMR in Pakistan and internationally as well. This Fellowship will help me to better navigate, understand and identify the gaps in our healthcare system. Later, I hope to advise and develop strategies for the judicious use of antibiotics. Finally, I look forward to working towards the best interest of humanity.

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**Rehana Kausar Malik – AMR Laboratory, Aquaculture (Pakistan)**

I am working as a programme leader and senior scientific officer for the aquaculture and fisheries programme at the Pakistan Agriculture Research Centre. My expertise is in fish microbiology. I am involved in fish disease diagnosis and treatment, and providing this service to farmers. I also work on fish growth, breeding and nutrition.

I was the director for a project on monosex (all male) tilapia seed production and culture. In addition, I have been coordinating and undertaking research activities to improve inland fish production at national levels and have supervised international and national level PhD and MPhil students.

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# Welcome to New Fellows

## Rehana Kausar Malik, continued.

The aquaculture sector in Pakistan is just starting, but is growing fast. Unfortunately, there has not yet been AMR work on aquaculture at an advance level. The main reason I intended to participate in this Fellowship is to gain the knowledge and skills to improve and strengthen my capacity in AMR surveillance.

I am excited that this Fellowship will offer me the opportunity to collaborate with global names in AMR, learn novel tools to advance AMR genomic surveillance and work with classical AMR approaches to address national disease challenges. This will not only be helpful for my sector and government policies, but will contribute to the response to global AMR questions as well.



## Ayesha Farooq – AMR Advocacy Policy, Human Health (Pakistan)

I am Ayesha Farooq, a medical doctor. My interest in public health and infectious diseases began during my days in medical school when I studied community medicine and worked on infections in villages. While studying microbiology and immunology at the College of Physicians and Surgeons of Pakistan, I became aware of perspectives from other fields, including zoonotic diseases and food microbiology. To me, there is a link between all these areas and how they

relate to public health.

I am self-motivated, an active learner and always a team player. I've had the opportunity to teach and mentor students in medical lab technology, dentistry, medicine, and nursing, and enjoy relaying information in a digestible way. Through my work in various settings, I became aware of the discrepancies and errors in microbiology research, and that guidelines are not enough to address these issues. With all our efforts in AMR containment, education, advocacy, and community mobilization, we need evidence-based policy which can translate into measurable impacts.

For the last two years, I have worked in the National Institute of Health (NIH) as a senior scientific officer of microbiology in the public health laboratory division. Here, I have been the team lead for Fleming Fund activities in human health. Through my division's work with the Fleming Fund, we have been involved in providing training and mentoring sessions to sentinel sites. Many of these labs were also enrolled in WHO GLASS. This journey is still ongoing and, as they say, when you start walking on the path of your vision, the way appears.



## Muhammad Akram – AMR Advocacy Policy, Animal Health (Pakistan)

Muhammad Akram currently works as deputy animal husbandry commissioner for the Ministry of National Food Security and Research in the government of Pakistan. He is the assisting chief veterinary officer for programmes and policy development on animal health and production.

Originally from a village called Youngpur in the central Punjab region of Pakistan, Muhammad earned a Doctor of Veterinary Medicine and an MSc from the University of Agriculture Faisalabad. He

then worked as a veterinary officer in the government of Punjab and, in this role, developed a strong passion for working with farming communities to improve their health and livelihoods. Muhammad visited a number of other developing countries and received a Master of Public Health from the University of Saskatchewan in Canada, as well as a PhD in veterinary medicine from the University of Veterinary and Animal Sciences, Lahore.

Muhammad has worked on national programmes including a response to an avian influenza outbreak and strengthening livestock services in Pakistan. He also developed a programme to establish a web-based disease surveillance system in Pakistan; this programme is now starting the implementation phase.

He is very excited to have been selected as a Fleming Fellow and intends to narrow the information gap between policy and technical institutions. This will help develop a strong coordination mechanism for implementing a One Health approach to control diseases of animal origin and improve public health at large.

# Field Notes

## On Fleming Fellowships, a Collaborative Project and COVID-19 Pandemic: insights from Sri Lanka Fellows

We are the eight Professional Fleming Fellows from Sri Lanka and our Fellowships started in 2020. We have been working on our individual learning activities and, in the beginning of this year, we began planning our Collaborative Project in the midst of COVID-19.



*AMU/C Surveillance Fellow in aquaculture, Sujeewa Ariyawansa, performing isolation of E.coli from shrimp samples. (Photo from NAARA - the National Aquatic Resources Research and Development Agency)*

Through meetings and an iteration of ideas, we set a common goal to develop, and establish a sustainable protocol for a One Health AMR and AMU/C surveillance and reporting platform. We aim for this to segue with the WHO-GLASS and OIE AMR surveillance systems in Sri Lanka in the long run.

Like many parts in the world, Sri Lanka has been adversely affected by COVID-19 pandemic. The impact of the pandemic on our medical system and daily lives has not only delayed our Fellowship activities' progress and restricted our learning, but has also limited our interaction with mentors and collaborating colleagues.

Despite these deterrents, we feel that we will manage to build something that is of smaller scale but valuable beyond the Fellowships. We are still able to collect samples, perform laboratory tests, develop skills and have discussions with Mentors and colleagues.

Our Host Institution is the School of Public Health at The University of Hong Kong. In addition to the online technical courses hosted by the School and other institutions, we conducted an online workshop on "AMR and AMU database building" in September. In the workshop, we met with Dr Janice Lo, the consultant

medical microbiologist for the Department of Health of the Government of Hong Kong SAR.

The workshop sparked discussion and further thinking on contextual approaches and methodologies to construct a sustainable and transparent platform for our AMR and AMU/C data reporting, storage, maintenance and sharing.

To various degrees, we are frustrated by the COVID-19 situation. But, as a silver lining, we find that the resilience, persistence and patience needed to cope with COVID-19 are also required across the many 'wicked problems' that occur in public health. Amongst these is AMR, and it is no small feat to overcome this problem.

The Sri Lanka Fellowships team would like to take this opportunity to share our good wishes with other Fleming Fellows and mentors, as well as Host and Beneficiary Institutions around the world. And of course, we wish to thank the Fleming Fund and Mott MacDonald for the tremendous support along the way.



*A group photo from the Sri Lanka workshop in September 2019. Attendees included Fellows, members of the University of Hong Kong Host Institution Team, the Fleming Fund management team and the UK government. (Photo from School of Public Health, The University of Hong Kong)*

# Field Notes

## Photo highlights from Summer 2021 in Zambia

This past summer, Zambia Fellow Mpanga Kasonde photographed many exciting events around the Fellowships. This includes a lab renovation, onsite mentorship by Fellows, and a presentation at an AMRCC meeting.

Thank you Mpanga for this wonderful insight into your work and the progress being made by all the Fellows and Fleming Fund grants in Zambia.



Onsite mentorship by Fellows on AST at Zambia National Public Health Institute (ZNPHI) Laboratory  
(photo by Mpanga Kasonde)



Mpanga Kasonde presenting on the Fleming Fellowship Scheme at the Zambia AMRCC Quarterly Meeting  
(photo by Mpanga Kasonde)



Improvised lab space to continue testing amid renovations  
(photo by Mpanga Kasonde)