

# Fresh Perspectives: Social Research on Antimicrobial Resistance

## Symposium and Networking Event

British Academy, London, UK

10 September 2018



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Society (AMIS) Research Programme at  
the London School of Hygiene & Tropical  
Medicine

10<sup>th</sup> September 2018

Dear Colleague,

Welcome to London, and to the “Fresh Perspectives: Social Research on Anti-Microbial Resistance” Symposium! We are really thrilled that all 100+ of you are here with us today.

When we first proposed organising this symposium to the ESRC, we wanted to create an intellectually engaging and supportive forum that would successfully bring together a wide-range of social researchers from all over the UK, and the rest of the world, particularly early career researchers who are forging careers in this field. We were stunned by the response to the symposium, and to learn how many others are working in this field. The quality of all the abstracts we received, for both oral and poster presentations, were truly outstanding. What all the researchers presenting today have in common is that they are attending to ‘the social’ in responding to the complex issue of antimicrobial resistance (AMR). They are all contributing in a range of ways to understanding and responding to AMR, and in so-doing are opening up spaces for interpreting the ways AMR knowledge and action are co-constructed, a valuable endeavour for us all to engage in when considering topics of global salience but with distinct local contours, like AMR.

Given that today is a work-in-progress and networking event, we hope that all of you will take the opportunity to exchange ideas about approaches and theory that may be relevant to on-going social research on AMR. Please do also take the time to visit the posters and engage with the authors during the refreshment breaks.

Presentations and discussions are organised around four themes: Care; Ecologies; Pharmaceuticals and Markets; and Knowledge. In the following pages, you will find today’s programme, delegate profiles and contact information, and all poster and oral presentation abstracts. We plan to make all oral and poster presentations available on the AMIS Hub website ([www.antimicrobialsinsociety.org](http://www.antimicrobialsinsociety.org)) in the coming weeks, so do check back often. While you are on there, do sign up for the AMIS monthly newsletter, and encourage others to do so – we will continue to support the growth of the AMR Social Research Community and will provide updates through the newsletter.

Finally I’d like to acknowledge and thank Laurie Denyer Willis, Pat Ng, Bianca D’Souza, as well as the organising committee – Raheelah Ahmad, Henry Buller, Suzanne Grant, Karina Kielmann, Fabiana Lorencatto, and Sarah Tonkin-Crine – for all their hard work and input into making today a success. This has been a group effort and is a testament to the passion we all share for this topic.

We are very excited to be hosting you, and are looking forward to the rich discussions today, and to continued collaboration, debate, and network-building in future.

Sincerely,



Clare Chandler

Principal Investigator, Anti-Microbials in Society (AMIS) Programme, London School of Hygiene & Tropical Medicine  
[amr.lshtm.ac.uk](http://amr.lshtm.ac.uk)  
[www.antimicrobialsinsociety.org](http://www.antimicrobialsinsociety.org)  
[www.lshtm.ac.uk/research/centres-projects-groups/anthropology-antimicrobial-resistance](http://www.lshtm.ac.uk/research/centres-projects-groups/anthropology-antimicrobial-resistance)

**Share your thoughts about the symposium today and in future:**

Tweet us [@AnthroAMR](https://twitter.com/AnthroAMR)

Use the hashtag [#SocSciAMR](https://twitter.com/AnthroAMR)

# Social Research on Anti-Microbial Resistance: Work-In-Progress Symposium and Networking Event

Time	Activity
08.45-09.00	Registration, tea, coffee
09.00-09.30	Welcome and introduction: <b>Clare Chandler</b>
09.30-11.00	<p><b>Theme One: Care</b> This panel will explore how antibiotics take the form of care in contemporary life, whether it is in medical, farming, labour or household settings.</p> <p><b>Katharina Rynkiewich</b> “Beyond the Nudge: How Hospital-Based Practitioners Navigate Antimicrobial Stewardship”</p> <p><b>Artricia Marina Rasyid</b> “The mustahiq pharmaceutical self as a trope for ‘polythetic’ consciousness: Ethnography of amoxicillin in Indonesian mosque-based health programs”</p> <p><b>Meixuan Chen</b> “Physicians’ clinical realities and perspective on antibiotics use in rural China”</p> <p><b>Mike Kesby</b> “Seeking UTI care ‘that works’ in Uganda: work in progress”</p> <p><b>Helen Lambert</b> Discussant</p>
11.00-11.30	Refreshments break – poster and photo exhibition viewing
11.30-13.00	<p><b>Theme Two: Ecologies</b> This panel will explore how antibiotics and AMR affect and shape the entanglement of human life with microbes, animals, plants and the environment.</p> <p><b>Stephanie Begemann</b> “Antibiotic policies in the UK dairy industry: unravelling the practices behind the numbers”</p> <p><b>Miriam Kayendeke</b> “Assessment of the use of antibiotics and its social context on poultry and piggery farms in Wakiso District, Uganda”</p> <p><b>Claas Kirchhelle</b> “Pharming Animals – antibiotics in global food production (1935-2013)”</p> <p><b>Richard Helliwell</b> “Making chemical infrastructures (in)visible: Environmental Imaginaries and the environmental sciences of antimicrobial resistance”</p> <p><b>Komatra Chuengsatiansup</b> Discussant</p>
13.00-14.00	Lunch – poster and photo exhibition viewing

14.00-15.30	<p><b><u>Theme Three: Pharmaceuticals and Markets</u></b></p> <p>This panel will explore economic and political lives of antibiotics and the ways they travel across the world.</p> <p><b>Md Fosiul Alam Nizame</b> “Perspectives of ‘unqualified’ practitioners on antibiotics in Bangladesh”</p> <p><b>Carla Rodrigues</b> “Self-medication with antibiotics in Maputo: practices, rationales and social relations”</p> <p><b>Panoopat Poompruek</b> “Rational use of antibiotics in Thailand: realities from local health facilities in central Thailand”</p> <p><b>Nicolas Fortané</b> “The evolution of the veterinary drug market and antibiotics prescribing practices of French veterinarians”</p> <p><b>Jens Seeberg</b> Discussant</p>
15.30-16.00	Refreshments break – poster and photo exhibition viewing
16.00-17.30	<p><b><u>Theme Four: Knowledge</u></b></p> <p>This panel will explore different ways we think about and to come to ‘know’ about AMR and antimicrobial use in science, policy and practice.</p> <p><b>Luke Curtis Collins</b> “Who or what has agency in the discussion of antimicrobial resistance in the UK news media (2010-2015)?”</p> <p><b>Esmita Charani</b> “Exploring the use of animation to promote the role of social science research as a tool for engagement with healthcare professionals on antimicrobial stewardship”</p> <p><b>Salla Sariola</b> “Living-with Microbes in the Era of Antimicrobial Resistance: International Vaccine Development in Benin, West-Africa”</p> <p><b>Andrea Núñez Casal</b> “Birthing antimicrobial resistance: Feminist para-ethnographies as interdisciplinary care knowledge practices”</p> <p><b>Nik Brown</b> Discussant</p>
17.30-18.30	Networking reception – Board with post-it notes for ‘What next for Social Research on AMR?’
18.30-19.30	<p><b><u>Theme Five: The state of the field of social research on AMR and next directions</u></b></p> <p><b>Stephen Hinchliffe</b> “The AMR Problem: Demanding ecologies, margins and co-producing alternative strategies”</p> <p><b>Clare Chandler</b> (chair), <b>Nik Brown</b>, <b>Jens Seeberg</b>, <b>Komatra Chuengsatiansup</b>, <b>Helen Lambert</b> – Panel discussion on reflections and provocations</p> <p>Questions and comments from the audience</p>
19.30-21.00	Light dinner and drinks

Please see pages 26 to 31 for presentation abstracts.

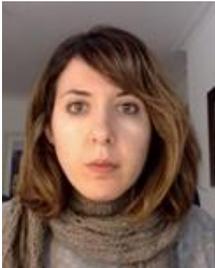
## Posters Presented at the Symposium

<p><b>Alena Kamenshchikova</b> Multiple versions of “One Health”: an analysis of policy discourses in international politics of antimicrobial resistance</p>
<p><b>Alexandra Hughes</b> Corporate food retailers, meat supply chains and the responsibilities of tackling- antimicrobial resistance (AMR)</p>
<p><b>Andrea Butcher</b> Aquaculture Ponds in Ontological Refraction</p>
<p><b>Anna Silvia Voce</b> Realist review of IPC measures: A conceptual framework for extraction of data from multiple disciplinary perspectives</p>
<p><b>Carolyn Tarrant</b> Antimicrobial stewardship: a principal-agent problem?</p>
<p><b>Chawanangwa Mahebere Chirambo</b> Roles of antibiotics in Fever Management in Chikwawa, Malawi</p>
<p><b>Christine Nabirye</b> Exploring antibiotic use in an urban informal settlement among daily wage earners in Kampala District, Uganda</p>
<p><b>Christopher J Colvin</b> Nosocomial Transmission of DR-TB as a Contested Object of Policy Knowledge in the Development and Implementation of DR-TB IPC Policy in South Africa</p>
<p><b>Emma Roe</b> Mapping Microbial Stories: creative microbial aesthetic and cross-disciplinary intervention in understanding nurses’ infection prevention practices.</p>
<p><b>Gisle Solbu</b> Antimicrobial resistance research and the making of a Norwegian bio-economy</p>
<p><b>Justin Dixon</b> Rethinking “Ordinary Fever” in Global Health: Algorithms and Classification Work in an Era of Antimicrobial Resistance</p>
<p><b>Kristen Overton</b> A sociological study on antimicrobial use and resistance in India</p>
<p><b>Maddy Pearson</b> Tinker, Tailor, Soldier, Sailor: Contextualising Antibiotic Prescribing and Dispensing across Low-Middle Income Country settings.</p>
<p><b>Marco Haenssger</b> Antibiotics and Activity Spaces: An Exploratory Study of Behaviour, Marginalisation, and Knowledge Diffusion</p>
<p><b>Nichola Naylor</b> Eliciting societal decisions regarding antimicrobial consumption: can health economic methods help?</p>
<p><b>S M Murshid Hasan</b> An anthropological exploration of antimicrobial use among commercial poultry farmers in Bangladesh: a study protocol</p>
<p><b>Susan Nayiga</b> Consequences of the imperative to restrict antimicrobial medicine use in Uganda: what is health care when antimalarials and antibiotics are under threat?</p>
<p><b>Zane Linde-Ozola</b> Microbiopolitics of human-microbe relationships: fight against hospital superbugs in Latvia</p>

Please see pages 32 to 38 for poster abstracts.

## Delegate Profiles

	<p><b>Adam Brisley</b> <b>University of Bristol</b></p> <p>Currently conducting an ethnographic study of antibiotic regulation in Catalunya with Prof Helen Lambert.</p>
	<p><b>Alena Kamenshchikova</b> <b>Maastricht University</b></p> <p>Alena Kamenshchikova is a PhD candidate at Maastricht University. Her thesis focuses on science-policy interactions in One Health antimicrobial resistance (AMR) practices in the Netherlands, Russia, and India. Her main research interests lie in the field of the politics of AMR and One Health, as well as its consequences for the materiality of multi-species communication and collaboration between scientists and practitioners working in the field of human, animal, and environmental health.</p>
	<p><b>Alexandra Hughes</b> <b>Newcastle University</b></p> <p>Research interests stem from the authors' involvement in a project on 'Corporate food retailers, meat supply chains and the responsibilities of tackling antimicrobial resistance (AMR)'. The project is funded by a pump-priming award as part of the Cross Council Initiative Theme 4: Behaviour within and beyond the health care setting. Conceptually, our research brings together theoretical perspectives on food supply chains with those associated with Science and Technology Studies and non-human geographies, in order to understand how governance of AMR involves relationships between global networks, corporate practice and the liveliness of the microbial world entangling with the materialities of food matters.</p>
	<p><b>Alice Tompson</b> <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>I am undertaking a PhD looking at antimicrobial use in companion animals. My research focuses on the human-animal nexus in the emergence and spread of antimicrobial resistance. I am interested in the roles of antibiotics in society, the application of multispecies ethnographic perspectives to public health issues and exploring the concept of the 'One Health'.</p>
	<p><b>Alison Swartz</b> <b>University of Cape Town</b></p> <p>Dr Alison Swartz recently began working on the Umoya Omuhle Project looking at drug-resistant tuberculosis (DRTB) in the Western Cape and in KwazuluNatal provinces. The project seeks to explore DRTB policy context, as well as how infection control is understood and managed in facilities. The burden of DRTB in Cape Town is considerable, as is HIV and DRTB co-infection. Alison is interested in how patients and healthcare workers negotiate the risk of DRTB infection spatially within facilities and communities, and socially within networks of care and social support.</p>
	<p><b>Andie Thompson</b> <b>University of Amsterdam</b></p> <p>I study the resistome and the social life of microbial resistance from the lab bench to the agricultural field. My interests include human-microbe relations and articulations of resistance within biotech projects that bioengineer resistance into microbial communities for particular functions. How scientists conceptualize microbial resistance and grapple with the complexities of microbial ecologies has been the topic of my recent work. Through laboratory ethnography and methods of "polymorphous engagement" I explore the ways in which scientists produce knowledge of resistance, how this knowledge is translated into "probiotic" products, and speculate about microbial futures of remediation.</p>

	<p><b>Andrea Butcher</b>  <b>University of Exeter</b></p>
	<p>As the role of environments—particularly aquatic environments—in the emergence and distribution of AMR is increasingly understood, I wish to examine how socioeconomic change and development, for example intensification of food production or expansion of urban water systems, enact perturbations in environmental conditions which facilitate accelerated AMR, particularly within environments that are antibiotic and threatening. Using primarily ethnographic methods, my aim is to generate knowledge of how urban economic development precipitates change in healthcare, water management and food production that can open new pathways for AMR transmission whilst signposting ecological, behavioural and institutional stressors requiring deeper understanding and/or intervention.</p>
	<p><b>Andrea Núñez Casal</b>  <b>Goldsmiths, University of London</b></p>
	<p>I work at the intersections of feminist and decolonial science and technology studies, body studies and anthropology of science. My research is concerned with the social-biological interplay in postgenomic science - particularly in relation to the human microbiome - as well as with biosocial solutions to health inequalities associated with antimicrobial resistance (AMR). My interests include: The links between human microbiome science and antimicrobial resistance; the embodied experiences of women after intralabour and postnatal antibiotics; the infant microbiome, immunity and social categories of difference; research methods to register embodied experiences of antibiotic use and/or antimicrobial resistance as social and situated de-medicalised approaches.</p>
	<p><b>Andrew Singer</b>  <b>NERC Centre for Ecology &amp; Hydrology</b></p>
	<p>My research aims to qualify and quantify the relative roles of different chemical drivers of antimicrobial resistance in non-clinical settings (i.e., the environment). I strive to understand and contextualise the critical concentration thresholds for these chemical drivers in an environmental setting with the aim to inform mitigation and policy.</p>
	<p><b>Anna George</b>  <b>Murdoch University</b></p>
	<p>Anna George is a former Australian ambassador and multilateral negotiator and now an adjunct professor Murdoch University, School of Public Policy and International Affairs and associate fellow with Chatham House, Centre on global Health Security. Actively contributes to analysis, governance and regulatory issues connected to AMR One Health policies including analysis of AMR and trade obligations (WTO and FTAs); she has provided evidence to Australia's parliamentary inquiries on AMR policy and governance issues. Published on AMR issues and presented most recently at the One Health Congress held in Canada on 'Trade Implications of Antimicrobial Resistance in the International Food Chain'.</p>
	<p><b>Anna Silvia Voce</b>  <b>University of KwaZulu-Natal</b></p>
	<p>I am interested in the health systems performance for the effective implementation of evidence-based practices. The interest is both in developing methodologies to measure the relationship between health systems performance and health outcomes, and in implementing participatory health system strengthening interventions, focused mostly on strengthening health system leadership and on developing conducive organisational cultures.</p>
	<p><b>Anne-Sophie Jung</b>  <b>University of Sussex</b></p>
	<p>My research focuses on the complexity of global governance of antimicrobial resistance. In particular, it aims to shed light on the nexus of global and local level governance in India, the power (a)symmetries, dynamics, and informal mechanisms constituting the global governance of AMR across levels and sectors.</p>

	<b>Artricia Marina Rasyid</b> <b>University of Cambridge</b>	<p>My research interests, broadly, revolve around analyzing health inequalities in low and middle-income countries (particularly Southeast Asian countries) through combining anthropological methodology, literary theories, and statistical visualizations.</p>
	<b>Bronwen Holloway</b> <b>Uppsala University</b>	<p>Bronwen is interested in implementation of evidence-based practices to improve the use of antibiotics in healthcare in resource-limited settings. Currently she is focusing on context, calling upon anthropology to broaden the understanding of the complexity of antibiotic use. She aims to move the discussion beyond narrow concepts such as “irrational use” judging the need for antibiotics as a medical means to balance the bacteria/disease scale and disregarding the broader social purposes and values that become ascribed to antibiotics by their users. Her work employs ethnographic methods for a more nuanced explanation and to explore the social, political and economic aspects of the context, interventions and their recipients.</p>
	<b>Carla Rodrigues</b> <b>University of Amsterdam</b>	<p>Pharmaceuticalisation of everyday life; Therapeutic pluralism; Lay rationales in health</p>
	<b>Caroline King</b> <b>Glasgow Caledonian University</b>	<p>Currently collaborating on the RIPEN project, funded by the AHRC, and using design, visualisation and other approaches to explore how nurses understand and respond to the priorities and consequences of AMR, I am interested in expanding how I work with the arts and humanities to think about the phenomenon of AMR. Theoretically, I am interested in the new materialisms to inform interdisciplinary inquiry into AMR. I am interested in considering how these theoretical perspectives and approaches can be used to think differently and productively about how we frame and respond to AMR.</p>
	<b>Carolyn Tarrant</b> <b>University of Leicester</b>	<p>Characterising and developing interventions to optimise antibiotic use and infection control practices; acute care settings; behaviour change; qualitative research.</p>
	<b>Catherine Hayes</b> <b>Public Health England</b>	<p>Student studying for Masters in Public Health  Work for Public Health England, National Infection Service, HCAI &amp; AMR division on the e-Bug project which educates young people about AMR and infection prevention.</p>

	<p><b>Catherine Will</b> <b>University of Sussex</b></p> <p>Strong interest in AMR issue, arising from research interests in broader fields including medical knowledge-making and surveillance, sociologies of medicine use and non-use, clinical interactions, public health and ordinary or domestic health experiences and practices.</p>
	<p><b>Charis Marwick</b> <b>University of Dundee</b></p> <p>PI on a theme 4 funded collaborative award – Antibiotic Research in Care Homes (ARCH) – a multidisciplinary collaboration including epidemiology, sociology, social anthropology, behavioural health psychology, and implementation science. Leading and involved in several multidisciplinary and mixed methods projects researching antibiotic use and resistance.</p>
	<p><b>Charli Colegate</b> <b>Wellcome Trust</b></p> <p>Charli works in the Humanities &amp; Social Science Research Funding team at Wellcome Trust.</p>
	<p><b>Charlotte Veal</b> <b>Coventry University</b></p> <p>I conducted two interdisciplinary post-doctorates with Dr Emma Roe on antimicrobial resistance in 2016, entitled Mapping Microbes and Ecobaths. I am interested in the cultural geographies of the non-human and how questions of performance, practice and aesthetics can contribute to wider knowledge on AMR. I am also interested in the role of experimental, interdisciplinary and creative methodologies in advancing studies of the non-human.</p>
	<p><b>Chawanangwa Mahebere Chirambo</b> <b>Malawi Liverpool Wellcome Trust</b></p> <p>How life and livelihood has been shaped around antibiotics (Symbolism of medicine and biomedicine care); How masculinity contributes to AMR (gender and Intersectionality); Taking of various alternative treatments around the same condition (Social power of diagnosis); How lack of or presence of guidelines are contributing towards AMR (policy).</p>
	<p><b>Christine Nabirye</b> <b>Infectious Diseases Research Collaboration</b></p> <p>I have a special interest in researching health care delivery in low resource settings. I am currently working on understanding antibiotic use in urban informal settlements with a focus on precarious labourers.</p>

	<p><b>Christopher J Colvin</b>  <b>University of Cape Town</b></p> <p>I am interested in the complex dynamics among academic research, health activism and policy development and implementation. I am particularly interested in how these different actors work to mobilise and legitimate new forms of evidence, and how new understandings of the objects of policy knowledge emerge (or not) within these engagements. I am also interested in how this process is in turn shaped by broader political imaginaries. In South Africa, these imaginaries include both the emancipatory promises of the end of apartheid as well as the global technocratic enterprise into which the new South Africa emerged.</p>
	<p><b>Claas Kirchhelle</b>  <b>University of Oxford</b></p> <p>My research focuses on the global history of antibiotic use, resistance, and regulation. I am especially interested in the international networks and supply chains spreading antibiotic use during and after the Cold War as well as in the technologies and institutions driving global AMR surveillance.</p>
	<p><b>Clare Chandler</b>  <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>Clare is Director of the interdisciplinary Antimicrobial Resistance Centre at LSHTM and heads the Anthropology of Antimicrobial Resistance research group at LSHTM. She is a prominent medical anthropologist on the topic of medicines and health care. Her research has produced rich and policy relevant accounts of the roles of medicines and of diagnostic tests across settings with different resource availability. Her in-depth ethnographic field sites have been in Uganda and Tanzania, and she has also led qualitative research in a range of other countries in Africa and Asia. She has provided technical advice to the UK and LMIC governments and the WHO on topics including Ebola, malaria and AMR.</p>
	<p><b>Coll Hutchison</b>  <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>Prophetic scientific, policy and media warnings of imminent medical catastrophe (ineffective antibiotics), societal regression (pre-antibiotic dark age) and continued microbial wars (need for new antibiotics) fuel demands to act and minimise further bacterial resistance. Simultaneously, others' hope for microbial peace via probiotic supplements, 'judicious' antibiotic use and the pursuit of microbio-ecological balance. Either way, modern life, as many of us have come to know it, appears to be unravelling. My research follows microbes and medicines as they emerge as scientific, policy and popular protagonists as means to explore this slow unravelling.</p>
	<p><b>Eleanor MacPherson</b>  <b>Malawi Liverpool Wellcome Trust</b></p> <p>Eleanor MacPherson is a Research Associate based at the Malawi-Liverpool-Wellcome Trust in Blantyre, Malawi. She is a social scientist and specializes in gender theory. She is leading social science work on three projects on AMR in Malawi. A hospital based study, exploring drug resistant infection, the role of antibiotics and hygiene and infection control practices. The FIEBRE study, which is exploring fever and antimicrobial use in rural Malawi with comparative research sites in Zimbabwe and Myanmar. The DRUM study which is exploring and modelling the drivers of AMR. Her work will focus on antibiotic use and access in urban Blantyre.</p>
	<p><b>Elina Oinas</b>  <b>University of Helsinki</b></p> <p>Feminist STS, specifically ethnographical study on a vaccine trial conducted in Benin, West Africa. The vaccine trial attempts to develop a product against diarrhea, and increase the biomedical understanding of AMR. The ethnographical study focuses on scientists' and lay people's accounts on why the research project matters and how microbial co-existence and embodiment can be envisioned.</p>

	<p><b>Emily Rousham</b> <b>Loughborough University</b></p> <p>I'm leading two projects in Bangladesh on antimicrobial resistance; one is examining shared resistomes of humans, animals and the environments and the drivers of antibiotic use among the poultry production chain (NERC/BBSRC/MRC funded). The second project is examining healthcare seeking behaviours in households and access to formal and informal providers of antibiotics, as well as the 'social lives of antibiotics' using anthropological approaches (ESRC-GCRF funded). Both are interdisciplinary projects that are bringing together new teams of researchers in the UK and in Bangladesh.</p>
	<p><b>Emma Pitchforth</b> <b>University of Exeter</b></p> <p>With a background in health services research and global public health, I am interested in AMR as a global policy issue. In current, research funded by the Arts and Humanities Research Council, I am exploring with colleagues what can be learnt from an historical understanding of how AMR has evolved as a policy issue, looking comparatively at tobacco control and climate change. We will use this historical understanding to better inform futures methods such as scenario planning. More broadly I am interested in the influence of more structural aspects of health systems and policies on AMR.</p>
	<p><b>Emma Richardson</b> <b>University of Leicester</b></p> <p>My research interests are in how policy and guidance is enacted through social interactions. I am an ethnographer on the Preserving Antibiotics through Safe Stewardship (PASS) project which seeks to understand the factors influencing consultation and prescribing decisions, review existing evidence of intervention effectiveness and relate these to well-established behavioural theory.</p>
	<p><b>Emma Roe</b> <b>University of Southampton</b></p> <p>Infection prevention practices, Microbial citizenship, AMR in food supply chains.</p>
	<p><b>Esmita Charani</b> <b>Imperial College London</b></p> <p>Esmita is the Senior Academic Pharmacist within the faculty of Medicine at Imperial College London at the NIHR Health Protection Research Unit for Healthcare Associated Infections and Antimicrobial Resistance. She is also a visiting Researcher at Haukeland University Hospital, Bergen Norway, and Amrita Institute of Medical Sciences, Kochin India where she is involved in research investigating optimisation of antibiotic use across surgical pathways. She completed her doctoral thesis investigating antimicrobial stewardship across India, Norway, France and England. She is the co-developer of a Massive Open Online Course on antimicrobial stewardship with the University of Dundee and British Society for Antimicrobial Chemotherapy.</p>
	<p><b>Esther Rottenburg</b> <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>I am interested in how knowledge on antimicrobials and AMR is being produced, altered, stabilised or put aside. AMR calls into question science, which produced antimicrobials – a technology of elimination – that brought about AMR and, until now, has failed to solve the problem. It challenges human speciesism, and the belief that we humans can and should design our planet by changing our natural environment according to our needs. Co-habitation, rather than elimination seems to promise a way forward. Taking this as a starting point, I am particularly interested in how knowledge on AMR travels between people and sectors in the regional context of Uganda.</p>

	<b>Eva Krockow</b> <b>University of Leicester</b>
	<p>I am interested in the application of psychological decision theory and game theory to the social dilemma of antibiotic prescribing. Additionally, I have a particular interest in the global dimensions of antimicrobial resistance including barriers to stewardship in low and middle income countries.</p>
	<b>Fabiana Lorencatto</b> <b>University College London</b>
	<p>I am a health psychologist with an interest in applying behavioural science theories and frameworks to understand the broad range of individual, socio-cultural and environmental factors influencing behaviours related to antimicrobial resistance, particularly antibiotic prescribing and stewardship. I am currently involved in two large ESRC funded projects that aim to conduct a behavioural analysis of barriers/enablers to appropriate use of antibiotics across multiple care settings, including primary care, secondary care, community pharmacy, and care homes.</p>
	<b>Gabriela Olmos Antillón</b> <b>Swedish University Of Agricultural Sciences (SLU) &amp; Universidade Federal De Santa Catarina (UFSC)</b>
	<p>Veterinarian graduated in México, with an MSc in Applied Animal Behaviour and Welfare from The U. of Edinburgh and a PhD from U. College Dublin through work related to beef and dairy cattle health and welfare in pasture systems. Have, worked as a clinician and consultant for rural dairy cattle herdsman. My current work at SLU/UFSC relates with antimicrobial use (ABU) in dairy cattle. The aim is to further studies in gaining a wider context of ABU in veterinary practices by triangulating findings of what is consider ideal vs. ongoing ABU veterinary practices in companion and food producing species as well as countries with divergent ABU challenges.</p>
	<b>Gillian Forbes</b> <b>University College London</b>
	<p>Interests include the use of behavioural change frameworks to support the implementation of evidence-based antibiotic prescribing practice.  Currently working on the ESRC funded Preserving Antibiotics through Safe Stewardship (PASS) study across 5 settings: primary care, secondary care, care homes and community pharmacies, and also the general population.</p>
	<b>Gisle Solbu</b> <b>Norwegian University of Science and Technology</b>
	<p>I am currently a post doctoral research fellow working within the field of Science and Technology Studies at the Norwegian University of Science and Technology. I work directly with the issue of antimicrobial resistance through transdisciplinary collaborations with AMR research projects focused on the development on novel anitibiotics. Here I focus on the relation between innovation narratives and activities, and the development of antibiotics.</p>
	<b>Grace Kimemia</b> <b>KEMRI Wellcome Trust</b>
	<p>The study aims to generate contextual knowledge of the health system traits and behaviours that need to be understood prior to formulation, testing and implementation of context-appropriate interventions to improve infection prevention and control practice and antibiotic stewardship (IPC-ABS), which is required to safeguard patient safety and limit emergence and spread of antibiotic resistance from clinical settings and neonatal units in particular. We also aim to identify context-appropriate indicators for use in monitoring and evaluation of interventions.</p>

	<p><b>Hayley MacGregor</b>  <b>Institute of Development Studies</b></p> <p>I am interested in the anthropology and health systems dimensions of AMR. I lead the social science research for an interdisciplinary project (PI Cambridge) with an AMR focus in Myanmar, under the BBSRC-led Zoonoses in Emerging Livestock Systems scheme. I am also a researcher in the LSHTM Umoya Umuhle project under the ESRC AMR scheme, led from LSHTM.</p>
	<p><b>Helen Lambert</b>  <b>University of Bristol</b></p> <p>Social, cultural, political dimensions of antimicrobial resistance, including its representation as a global health issue; popular understandings of antibiotics; antibiotic prescribing, dispensing and consumption practices in Europe and Asia, particularly India, China, Thailand; evidence, monitoring and regulatory responses to AMR; interdisciplinary AMR research and the integration of social science conceptual frameworks; equity and access to antimicrobials; ecology and technology.</p>
	<p><b>Henry Buller</b>  <b>University of Exeter</b></p> <p>Interested in the multiple practices associated with antimicrobial use in livestock farms.  Currently:  PI on ESRC AMR Theme 4 Collaborative award 'Diagnostic Innovation in Livestock' (2017-2021) investigating better diagnostics for sustainable antimicrobial use in agriculture  Co-I on MRC funded Consortium award 'One Health Drivers of Antibacterial Resistance in Thailand' (2018-2021)</p>
	<p><b>Jane Dickson</b>  <b>University of Dundee</b></p> <p>I am a medical anthropologist, interested in the material and sensorial cultures in healthcare, the material culture of medications, digital medicine and the ways in which healthcare staff negotiate their professional identities.</p> <p>My current research uses Video Reflexive Ethnography (VRE) as an improvement method within an Acute Medical Unit and in September 2018, I will join the Antimicrobial Research in Care Homes (ARCH) project, at Dundee University as the ethnographer.</p>
	<p><b>Jennifer A. Ida</b>  <b>University of Calgary</b></p> <p>My research examines the biosocial complexity of antimicrobial resistance in the dairy industry via the integration of anthropological frameworks and tools. It focuses on the co-construction of veterinary medical culture, intensive dairy farming, and resistant microbes. I am specifically interested in understanding how antibiotic use is executed within local contexts and driven by distinct, but interacting cultural, sociopolitical, and economic systems. My work will draw on the lived experiences of dairy farming families in Alberta, Canada, giving particular attention to inherent values and dynamic relationships with their veterinarians.</p>
	<p><b>Jennifer Cole</b>  <b>Department of Geography, Royal Holloway, University of London</b>  <b>Oxford Martin School, Oxford University</b></p> <p>I am currently Co-PI on two ESRC/DBT projects funded by the Newton-Bhabha Fund to understand the emergence and spread of AMR through the Indian poultry sector. I am leading social science work packages that will investigate behavioural drivers of antibiotic use and pilot interventions. As part of the projects we are training scientists (veterinarians and microbiologists) to have a better understanding of social science methodologies and how social science can be incorporated into their work. We are also planning coordination work across four projects funded under the same call that will help us to develop better methodologies for cross-disciplinary working.</p>

	<p><b>Jens Seeberg</b> <b>Aarhus University</b></p> <p>As a medical anthropologist, I have been working for the past 15 years with tuberculosis in India, the role of the commercial healthcare market and, during recent years, the production of drug-resistant tuberculosis (DRTB). Using multispecies ethnography as a source of inspiration to ask news questions that may destabilize commonly held assumptions about DRTB, I am particularly interested in the ways opportunities are consistently created for the biosocial production of drug resistance. I am also currently involved in the development of an interdisciplinary project on colistin-resistance in Denmark and Europe.</p>
	<p><b>John Manton</b> <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>I am a mentor for the AMIS Hub, specialising in histories of disease control and health planning, and historical anthropology of scientific research in Africa. I am also Head of Humanities and Environmental Sciences at the Antimicrobial Resistance Centre at LSHTM.</p>
	<p><b>Justin Dixon</b> <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>Justin is a medical anthropologist in the LSHTM Antimicrobial Resistance (AMR) Centre and is currently working on the social science component of the FIEBRE study in Sub-Saharan Africa and South-East Asia. Justin's research interests lie at the intersection of the anthropology of medicine and science. His current research explores the roles of antimicrobial medicines in fever case management with a focus on diagnostics and clinical algorithms.</p>
	<p><b>Karina Kielmann</b> <b>Queen Margaret University</b></p> <p>My work on drug-resistant tuberculosis (DR-TB) in South Africa involves two separate projects: 1) I am using realist evaluation methods to understand pathways, processes, and dynamics of care for DR-TB patients in the emerging decentralised models of care; 2) I contribute towards work espousing a 'whole systems' approach to infection prevention &amp; control (IPC) for DR-TB at primary care level. This work focuses on how health workers make sense of IPC guidelines within clinic spaces, infrastructure, organisational culture, and local framings of risk and responsibility.</p>
	<p><b>Katharina Rynkiewich</b> <b>Washington University in St. Louis (WUSTL)</b></p> <p>Trained as a medical anthropologist, I am interested in structures of care in North American medical institutions. My dissertation research centers on two large urban hospitals in the American Midwest, focusing on the treatment decisions made by infectious disease experts in the hospital setting. My approach to the problem of antimicrobial resistance is an ethnographic emphasis on antibiotic experts involved in antimicrobial stewardship in healthcare systems. I hold an A.M. in Social Science Research from the University of Chicago (2013), and a B.A. in Anthropology from the University of Missouri – St. Louis (2012).</p>
	<p><b>Katherine Keenan</b> <b>University of St. Andrews</b></p> <p>I am a Co-I on a new 3 year project investigating drivers of AMR in East Africa (HATUA). My role is to lead a workpackage on synthesis and dissemination, bringing together qualitative and quantitative findings to identify common drivers and points for intervention.</p>

	<p><b>Kerstin Weich</b> <b>Messerli Research Institute</b></p> <p>My research interests in antimicrobial resistance are: the role of antibiotics in veterinary body- and biopolitics of animals; infectious disease management, esp. culling; antimicrobial resistance in the perspective of veterinary ethics, e.g. individual versus public health.</p>
	<p><b>Kin Wing (Ray) Chan</b> <b>University of Exeter</b></p> <p>Dr Chan is an animal geographer who is interested in the areas of agri-food governance, animal health and the emergence of antimicrobial resistance (AMR) in the United Kingdom and China. He is a human geographer who is interested in the areas of agri-food governance, animal health and the emergence of antimicrobial resistance (AMR) in the United Kingdom and China. He is currently working on a four years research project: Diagnostic Innovation and Livestock (DIAL) that examines how diagnostic innovations reduce the utilisation of antibiotics in livestock farming in the United Kingdom.</p>
	<p><b>Komatra Chuengsatiansup</b> <b>Ministry of Public Health, Thailand</b></p> <p>I am a medical anthropologist, medical doctor and the Director of the Society and Health Institute, which is part of the Ministry of Public Health, Thailand. He has researched and widely published in Thai and international journals on community health and social policy, including community drug use, village health volunteers, and primary care in Thailand. As a medical anthropologist working in the Ministry of Public Health, my works are instrumental in integrating an anthropological perspective in health policy development and implementation. I have taught extensively on anthropological theory and research methods, community health work, pharmaceutical use and health policy in Thailand and internationally. I have previously worked together with Luechai Sringernyuang on community drug use in Thailand, with a particular focus on antimicrobials. As co-investigator on the AMIS programme in Thailand, I lead and oversee the following ethnographic component of the project in Thailand. My research will focus on the anthropology of knowledge, partly with relation to health care professionals and scientists working with antimicrobials and AMR.</p>
	<p><b>Koula Charitonos</b> <b>The Open University</b></p> <p>Antimicrobial resistance can be described through biological terms and mechanisms, but it is shaped by social, cultural, political and economic drivers. Understanding how the public and healthcare professionals understand, value and use antimicrobials, as well as the context in which health professionals develop work practices related to AMR are important to our research. We view learning for work as a critical component of innovation and the adoption of new and contemporary work practices. We are also interested in developments in technologies and digital networks and how these are stimulating the evolution of systemic new work practices while automating others, especially by examining changes in the professional practice of people who work in areas relevant to AMR.</p>
	<p><b>Kristen Overton</b> <b>University of New South Wales</b></p> <p>Kristen Overton is a PhD student at the Centre for Social Research in Health at The University of New South Wales and Infectious Diseases specialist from Sydney, Australia. Her research is focused is on developing a critical analysis of the social and cultural influences on antimicrobial use and resistance in Hyderabad, India.</p>



**Laurie Denyer Willis**  
**London School of Hygiene & Tropical Medicine**

Laurie Denyer Willis is a medical anthropologist in the Anti-Microbials in Society (AMIS) Hub, and co-editor of the AMIS online platform, [www.antimicrobialsinsociety.org](http://www.antimicrobialsinsociety.org)  
 Laurie's research concerns the urban and political ecologies of health and disease in postcolonial landscapes. Her research explores animal-human relations (mostly chickens and pigs), sensory forms of knowledge (mostly smell and touch), and religious forms of care and hope (mostly Pentecostal).



**Leesa K. Lin**  
**London School of Hygiene & Tropical Medicine**

Inappropriate and excessive use of antibiotics exists at all levels of medical care in China, which accounts for half of global antibiotic usage and has the most rapid growth rate of antimicrobial resistance (AMR). My PhD project aims to apply a rigorous mixed-methods research approach to identify promising behavioural interventions to reducing the inappropriate use and demand for antibiotics in the context of China. Applying social and behavioural theories, my study will integrate person-focused efforts with environment-focused community-based interventions to modify people's health behaviours and enhance their social surroundings to ensure long-term improvement of prudent antibiotic use.



**Louise Norton-Smith**  
**Department of Health and Social Care**

I'm a policy official (and a social anthropology graduate) at the Department of Health and Social Care leading on the delivery of the UK Government's Global AMR Innovation Fund (GAMRIF). GAMRIF is a £50m 'One Health' fund for innovative research and development in neglected and under-invested areas of science which address AMR in low- and middle-income countries. Whilst the majority of the Fund will focus on product development, grantees will be strongly encouraged to consider the social sciences factors in their research, including how to overcome potential barriers to uptake of any novel technologies in resource-poor settings. I'm keen to build bridges between our future grantees and the wider social science community.



**Luechai Sringernyuang**  
**Mahidol University**

The research interests in antimicrobial resistance is better understanding the role of antimicrobials in daily life in Thai society in diverse contexts and with different actors, including health care providers, farmers, day wage urban workers, scientists and policy-makers. As member on the AMIS Hub project, he leads and oversees the Nakorn Pathom ethnographic component of the project in Thailand. His research will focus on the anthropology of pharmaceuticals and care and will partly involve a comparison with his previous research on community drug use.



**Luke Curtis Collins**  
**Lancaster University**

Using methods in applied linguistics such as corpus linguistics and discourse analysis, I am interested in the patterns evident in public discourses around AMR, such as news discourse and scientific and political discourses. My research looks at how different social actors are positioned within the issue as a way of indicating agency and responsibility. Corpus linguistics supports an analysis of the prevailing patterns in, for example, news data, and a closer examination of the way that language is constructed offers insights into how factual information and guidance on responses to AMR are conveyed to the public.

	<p><b>Maddy Pearson</b>  <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>Maddy is a research assistant with the Anthropology of Antimicrobial Resistance Group at LSHTM. Her research explores awareness of antimicrobial resistance (AMR) among prescribers and dispensers across Low-Middle Income Country (LMIC) settings, focusing in particular on the wider social, economic and structural determinants of health and exploring how such variables influence understandings of AMR, the role of antibiotics and the context of their usage. She is increasingly interested in interdisciplinary works that challenge binary formulations of human, microbe relations, wondering how these insights might contribute to more nuanced framings of AMR.</p>
	<p><b>Mahfuza Talukder Flowra</b>  <b>University Gadjah Mada (UGM), Indonesia &amp; South-East Asia One Health University Network (SEAOHUN), Thailand</b></p> <p>I am an early career One Health Implementation researcher in Southeast Asia. As a WHO-TDR fellow at Universitas Gadjah Mada (UGM), my research focus is the identification of the barriers and gaps to implement different public health action plans in developing countries including AMR with special attention on the current knowledge and behaviour change communication strategy regarding antibiotic abuse. During my fellowship at FAO Regional Office for Asia Pacific (FAORAP) in Thailand, I have worked with AMR and ECTAD team specially in regional programs on AMR as well as the country situations in this region.</p>
	<p><b>Marco Haenssger</b>  <b>University of Oxford</b></p> <p>My AMR-related research interests are treatment-seeking behaviour and the role of contextual change therein, people's notions of antibiotics and illness, marginalisation and constraints in accessing healthcare, and the intended and unintended consequences of AMR interventions. I carry out qualitative and quantitative research with a development studies background and a geographical focus on Southeast Asia. I am currently leading a Theme-4 pump-priming grant under the UK Research Council's AMR Initiative, in which we document and analyse people's complex treatment-seeking behaviours in rural Thailand and Lao PDR to challenge mainstream global health discourses implicit in behavioural AMR policies.</p>
	<p><b>Margaret Charleroy</b>  <b>Arts &amp; Humanities Research Council</b></p> <p>I lead AMR research funding strategy and development at the Arts and Humanities Research Council, where I aim to foster a working relationship between researchers in the sciences and the arts and humanities in order to pursue topics that cannot be successfully addressed by either side alone. My research interests focus on AMR and design, and understanding how behaviour impacts on AMR.</p>
	<p><b>Marie Louise Wright</b>  <b>WHO Regional Office for Europe</b></p> <p>Tailoring antimicrobial resistance programmes [TAP]: How to collect data on the barriers and enablers of target groups in performing desired behaviours, and use this data for the design of health interventions to reduce AMR, i.e. IPC, prescription, dispensing and consumption of antibiotics, and diagnostic stewardship.</p>

	<p><b>Md Fosiul Alam Nizame</b>  <b>International Centre for Diarrhoeal Disease Research, Bangladesh</b></p> <p>Bangladesh is particularly vulnerable to unregulated and 'irrational' use of antibiotics within the large informal health sector. My research interest is to explore the pathways of antibiotic prescribing/selling and related knowledge among health care providers/drug sellers in Bangladesh. Currently I am working on an AMR study which aims to understand the knowledge and practice of antibiotic provision among 'unqualified' drug sellers through in-depth interviews and observations. The preliminary results show that knowledge and practice varies greatly among untrained drug sellers. Rational use of antibiotics is limited among many providers and sellers due to limited current knowledge and responsible practice.</p>
	<p><b>Meixuan Chen</b>  <b>University of Bristol</b></p> <p>I am an anthropologist working on anti-microbial resistance in China.</p> <p>Trained in Social Anthropology and migration studies, I am now working as a qualitative researcher in the MRC-funded Newton Fund project on AMR in China. I am interested in examining the local and national social-historical contexts in which the AMR issue is embedded and in which the knowledge of AMR is produced. I carried out ethnographic observation, in-depth interviews with physicians and patients, and managerial members of health facilities in rural areas of Anhui, China. I am also interested in the intersection of migration study and health study in general.</p>
	<p><b>Mike Kesby</b>  <b>University of St Andrews</b></p> <p>I am part of the HATUA (Holistic Approach To Unravel Antibacterial resistance in East Africa) research project. 'Hatua' is Swahili for 'action'. We are an international, interdisciplinary consortium of social, clinical and genomic scientists studying the drivers of AMR in Urinary Tract Infections in three East African countries (Uganda, Tanzania and Kenya) which was recently (April 2018) funded as an 'AMR in a Global Context Consortia' by the UK Department of Health and Social Care. I am a qualitative Human Geographer who has previously worked on HIV and sexual health among young people in Zimbabwe and Zambia.</p>
	<p><b>Miriam Kayendeke</b>  <b>Infectious Diseases Research Collaboration</b></p> <p>Understanding the context of antibiotic use in food animal production</p> <ul style="list-style-type: none"> <li>- How antibiotics enable farmers livelihood</li> <li>- Relationship between antibiotics and Value attachment (time, product, investment)</li> <li>- How antibiotics shape animal health care and livelihoods</li> <li>- Employing ethnography tools to the study of individual, community and population behaviour in the use of antimicrobial medicines</li> </ul>
	<p><b>Mostafa Elyomni</b>  <b>Maastricht University/Sussex University (Joint project)</b></p> <p>Currently enrolled as an external PhD candidate at Maastricht University, and working jointly with Sussex University on an AMR project, looking at AMR in Egypt through social sciences perspectives, and analysing local and international AMR through Network Theory, to further understand the interactions between different actors, and how they affect the whole process.</p>
	<p><b>Naomi Beaumont</b>  <b>ESRC</b></p> <p>I work in the health and human behaviour team at the Economic and Social Research Council (ESRC), part of UK Research and Innovation. I lead much of ESRC's portfolio relevant to AMR, and represent ESRC on the cross research funder UK AMR funders forum.</p>

	<p><b>Nichola Naylor</b> <b>Imperial College London</b></p> <p>Research interests include applying health economics and health outcomes concepts to further understand antimicrobial resistance (AMR) and how to most efficiently target this issue. This includes estimating the burden of AMR in terms of health and monetary impact, utilising statistical and mathematical modelling techniques. Additionally, work is being undertaken on understanding methods that have been (or can be) used in eliciting the quality of life impact of AMR, and societal preferences within the decision making process of taking antibiotics. Such research is aiming to provide information that can then be used in policy evaluation.</p>
	<p><b>Nicola Claire Gordon</b> <b>Mott MacDonald (Fleming Fund)</b></p> <p>I am a clinical microbiologist / infectious diseases physician with a significant research interest in the genetics and epidemiology and transmission of multi-drug resistant infections. There is no lack of laboratory and clinical evidence to demonstrate the link between imprudent antimicrobial use in humans and the emergence of resistance, but despite this, clinicians are poorly motivated to change and I am developing an interest into how society can help to motivate and support clinicians to alter prescribing behaviours.</p>
	<p><b>Nicolas Fortané</b> <b>INRA – French Institute for Agricultural Research</b></p> <p>Recent policy measures in France aiming at regulating the veterinary drug market, in particular the conditions under which antimicrobials are prescribed and sold, encourage a shift in veterinary knowledge and working conditions. The growth of epidemiological approaches and of franchised veterinary practices, whose business model is less dependent on the sales of antimicrobials, favours the development of a preventive veterinary medicine which tends to consume less antibiotics. This work is part of a research project on the evolution of the French veterinary drug market and is based on some thirty sociological interviews with poultry and pig veterinarians in western France.</p>
	<p><b>Nik Brown</b> <b>University of York</b></p> <p>My most recent areas of interest include the biopolitics of infections, spatial and temporal aspects of the built environment and anti-microbial resistance (AMR). This has resulted in a recently awarded AHRC funded project (2018-20) exploring the relationships between hospital architectural design and infection control (PARC - Pathways, Practices and Architectures: Containing Antimicrobial Resistance in the Cystic Fibrosis Clinic). I'm also PI on another Wellcome Trust funded grant collaborating with the Royal College of Art exploring 'healthcare architecture in the pre-antibiotic, antibiotic, and post-antibiotic ages'. I'm also interested in the biopolitics of immunity resulting in my new monograph ('Immunitary Life: The biopolitics of Immunity', Palgrave-Macmillan, 2018).</p>
	<p><b>Nutcha Charoenboon</b> <b>Mahidol Oxford Tropical Medicine Research Unit</b></p> <p>I am a Bangkok-based research officer on the project "Antibiotics and Activity Spaces," funded by the UK Research Council's AMR Initiative, in which I manage qualitative and survey data collection together with AMR-based educational activities. I am particularly interested in drivers of people's medicine use and treatment choices, and in the unintended consequences of public engagement.</p>
	<p><b>Panoopat Poompruek</b> <b>Silpakorn University</b></p> <p>Panoopat Poompruek is a lecturer and Head of Community Pharmacy Department, Faculty of Pharmacy at Silpakorn University, Thailand. He completed his PhD in Medical and Health Social Sciences from Mahidol University. His dissertation was on 'For me... It's a magic': Knowledge and Reality Constructions of Medicines used among Transgender and this was published in 2014 on the International Journal of Drug Policy. His research areas focus on medical and health anthropology, anthropology of gender and sexuality, consumer protection in health and qualitative methodology.</p>

	<p><b>Papreen Nahar</b> <b>Durham University</b></p> <p>I am interested in socio-cultural and political dimensions of AMR in Low and middle income countries, specifically exploring the theory of 'Social Lives of Medicines', which considers medicines as 'things' with social lives. I take ethnographic and inter disciplinary approach in my research. I am currently leading a component of an AMR project to explore the understanding of antibiotics provision among qualified prescribers and 'unqualified' drug sellers in rural and urban areas in Bangladesh. This is a collaborative project between Loughborough(P-I), Durham, Bristol, BRAC Universities and ICDDR,B, which explores pathways of antibiotics (PAUSE), me involved as a Co-I from Durham University.</p>
	<p><b>Phakha Whanpuch</b> <b>Mahidol University</b></p> <p>The research interests in antimicrobial resistance is better understanding the role of antimicrobials in daily life in Thai society in diverse contexts and with different actors, including health care providers, farmers, day wage urban workers, scientists and policy-makers. As project manager of the AMIS programme in Thailand she will conduct ethnographic fieldwork in Nakhon Pathom, with a specific focus on the anthropology of pharmaceuticals and antibiotic use in agriculture.</p>
	<p><b>Rachel Tolhurst</b> <b>Liverpool School of Tropical Medicine</b></p> <p>I am currently engaged in an MRC-funded research project which brings together anthropological and participatory approaches together with microbiology, veterinary and environmental sciences and mathematical modelling, to identify the drivers of AMR for the purpose of informing policy in Malawi and Uganda. My particular interest is in using social theory and methods to challenge and reframe dominant public health discourses on antimicrobial use and AMR drivers in Low and Middle-income countries, where access to quality healthcare, including antibiotics, remains limited for the poorest and most vulnerable, who also face the greatest health challenges due to structural violence.</p>
	<p><b>Raheelah Ahmad</b> <b>Imperial College</b></p> <p>Awarded NIHR Fellowship in Knowledge Mobilisation to evaluate sustained impact of interventions across the healthcare economy to address antimicrobial resistance (AMR). Co-Investigator and carrying out macro-level analysis on the ASPIRES (Antibiotic use across Surgical Pathways - Investigating, Redesigning and Evaluating Systems) project. This is a major Economics and Social Research Council (ESRC) and Global Challenges Research Funded (GCRF) international research consortium which looks at medical, social and behavioural science aspects of AMR in health care. The project aims to research how antibiotic use can be optimised along the entire surgical pathway, addressing antimicrobial resistance and improving clinical outcomes.</p>
	<p><b>Richard Helliwell</b> <b>University of Nottingham</b></p> <p>My research explores the production of knowledge at the interface of agricultural and environmental dimensions of AMR research. I am interested in examining the diverse knowledge-practices of environmental scientists, veterinarians and farmers in the context of making sense of AMR. Specifically, how they make (in)visible AMR in culturally specific ways of acting and knowing. Furthermore, my work explores how these sometimes disparate bodies of knowledge-practice can be brought into new relationships for the benefit of animal husbandry and AMR stewardship and the implications of this for practice and policy.</p>

	<p><b>S M Murshid Hasan</b> <b>Mahidol University</b></p> <p>My research interests in antimicrobial resistance include the transaction of antimicrobial for healthcare and agricultural purposes in particular socio-economic, cultural and political context. Since I had been working in AMIS project based on Thailand, my research interest has been focused on the antimicrobial use in agricultural production. For my doctoral thesis, I am going to explore (1) how antimicrobial is integrated into different systems and practices with commercial poultry production (2) individual and collective attitudes, priorities and understandings of different stockholders (3) how social practices perceive as encouraging or leading to changes in individual prioritization and response.</p>
	<p><b>Sabiha Yusuf Essack</b> <b>University of KwaZulu-Natal</b></p> <p>Triangulation of the molecular epidemiology of antibiotic resistance in human, animal and environmental health (One Health) from robust, representative surveillance programmes and whole genome sequence analysis to inform biomedical, clinical, socio-behavioural and policy interventions/strategies for the prevention and containment of antibiotic resistance.</p>
	<p><b>Salla Sariola</b> <b>University of Helsinki</b></p> <p>Salla is a Finnish Academy Research Fellow and PI of a project entitled: Antimicrobial resistance in West Africa (AMRIWA). As a sociologist and anthropologist by training Salla is interested in developing new social scientific concepts for understanding microbes as well as working with medical researchers in tackling the health concern.</p> <p>Salla is a senior lecturer at University of Helsinki and the author of 'Research as Development: Clinical trials, international collaboration and bioethics in Sri Lanka' (published in 2019 by Cornell University Press) and 'Gender and Sexuality in India: Selling sex in Chennai' (Routledge, 2012). She is the coordinating editor of Science and Technology Studies, the house journal of European Association for the Study of Science and Technology.</p>
	<p><b>Salome Manyau</b> <b>London School of Hygiene &amp; Tropical Medicine</b></p> <p>Through ethnographic work of participant observation, interviews and medicine survey in Harare, Zimbabwe, my research interests are in exploring how fever and antimicrobials use are related in practice and the variety of roles that antimicrobials play in the management of fever in everyday life within variety settings (formal and informal).</p>
	<p><b>Sarah Lobo</b> <b>ESRC</b></p> <p>I am a Research Portfolio Manager within the Health and Human Behaviour team at the Economic and Social Research Council. My role includes supporting our Antimicrobial Resistance portfolio.</p>
	<p><b>Sarah Tonkin-Crine</b> <b>University of Oxford</b></p> <p>I am a Health Psychologist and Senior Researcher funded by the NIHR HPRU on Healthcare Associated Infections and Antibiotic Resistance. I am an expert member of the Government's Advisory Committee on Antimicrobial Prescribing, Resistance and Healthcare Associated Infection (APRHA) which provides practical and scientific advice to the government on minimising the risk of healthcare associated infections. I work on projects aimed at reducing unnecessary antibiotic prescribing in primary care. I am interested in changing the behaviour of patients, so that they consume fewer antibiotics, and the behaviour of clinicians, so that fewer antibiotics are prescribed.</p>

	<b>Shiuli Das</b> <b>International Centre for Diarrhoeal Disease Research, Bangladesh</b>
	I am interested to explore the transaction of antimicrobials for different sectors in Bangladeshi context that help policy makers to develop more appropriate policies and interventions to tackle AMR in Bangladesh. However, I have already actively engaged with my colleague's PhD research focused on pharmaceutical anthropology exploration of antimicrobial use in commercial poultry production in Bangladesh. We aim to explore (1) how antimicrobials are Integrated into different systems and practices with commercial poultry production (2) stockholder's individual and collective attitudes, priorities and understandings about antimicrobials (3) how social practices regarding antimicrobial uses influence to changes in individual prioritization and response.

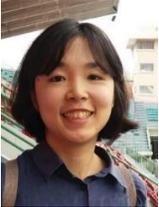
	<b>Sittichoke Chawraingern</b> <b>Ministry of Public Health, Thailand</b>
	I am a medical anthropologist, have conducted anthropological research on community responses to natural disasters, as well as cultural and health risk in Thailand. I have published on anthropology, health administration and training tools for community disasters management in Thailand. As member of the AMIS programme in Thailand I will conduct ethnographic following fieldwork, with a specific focus on antimicrobial use in livestock, especially in pig farms. I pay attention on how relationship between human and non-human, especially pigs and microbes, have been shape and have affect AMR emergence and antibiotic use - mainly using a multispecies and chemo-anthropology approach.

	<b>Stephanie Begemann</b> <b>University of Liverpool</b>
	After working as a veterinarian in practice, I decided to study medical anthropology and sociology to better understand and manage veterinary public health issues. I studied the implementation of Dutch antibiotic agricultural policies as part of my master thesis, after which I have become highly interested in the 'co-production' between antibiotic policy frames and agricultural antibiotic infrastructures. I have been able to continue this interest in my PhD in which I approach agricultural antibiotic use beyond behaviour and study it as the complex interplay between politics, markets and social worlds.

	<b>Stephen Hinchliffe</b> <b>University of Exeter</b>
	Microbes and society, healthy publics, socio-ecologies of pathologies, livestock, aquaculture, diagnostics

	<b>Susan Nayiga</b> <b>Infectious Diseases Research Collaboration</b>
	Restriction of antimicrobial medicines use in the face of the imperative to reduce antimalarial and antibiotic medicines use and how this affects the way health care is delivered and understood.

	<b>Suzanne Grant</b> <b>University of Dundee</b>
	My research focuses on the application of ethnographic methods (including video reflexive ethnography) to understand and improve the safety and quality of healthcare organisations and the care of older people with multimorbidity. I am co-investigator and ethnographic work package lead on the ESRC-funded Antibiotic Research in Care Homes (ARCH) project, which is a multi-disciplinary research collaboration across the disciplines of epidemiology, anthropology, and psychology investigating how to safely improve antibiotic prescribing in care homes.

	<p><b>Suzanne Hocknell</b> <b>Newcastle University</b></p> <p>In attempting to 'save' both antibiotics and medicine from antimicrobial resistance, international policy remains focussed on the more efficient use of the tools of modernity - rationalisation, surveillance, and securitisation. By drawing on empirical research within and across meat supply networks my work problematises the antibiotics approach to health and illness to begin to explore possibilities for practicing health and wellbeing as a collective, careful, and ecological living with, in, and amongst, microbial communities.</p>
	<p><b>Thitima Urapeepathanapong</b> <b>Ministry of Public Health, Thailand</b></p> <p>I am an anthropologist at the Society and Health Institute. My previous research experience includes media studies, digital security, business and human rights, and disaster and One Health. As a member of AMIS program in Thailand, I will conduct ethnographic research focusing on antimicrobial usage in tangerine plantation to understand how knowledge of using chemical substances; pesticide, fertilizer, herbicide, antibiotics, has been constructed and transmitted.</p>
	<p><b>Tingting Zhang</b> <b>University of York</b></p> <p>I am interested in human antimicrobial resistance, especially human antibiotic use and resistance in China. My doctoral research focuses on influences on healthcare providers and parents' behaviour regarding the use of antibiotics for children in China. Potential impacts are explored from individual level, interpersonal level to broader organisational and policy level. It suggests that healthcare providers and parents' shared understandings of disease and treatment drawing on both Traditional Chinese medicine and Western medicine, their perspectives on trust and familiarity, as well as border factors related to China's healthcare system and policies, are influences on healthcare providers and parents' antibiotic-related behaviour.</p>
	<p><b>Uravadee Chanchamsang</b> <b>Ministry of Public Health, Thailand</b></p> <p>I am a medical doctor and medical sociologist at the Society and Health Institute. My previous research experience includes, screening on depression in Diabetes Mellitus patients and the medical socialisation of Thai physicians. I have been involved in medical ethics, community mental health and preventative medicine committees and advisory boards. As member of the AMIS programme in Thailand I will conduct ethnographic following fieldwork, with a specific focus on the counterfactuals or the alternative knowledge and practices, especially Ayurveda and Chinese medicine adapted by care providers for replacing antibiotic use.</p>
	<p><b>Vanessa Heggie</b> <b>University of Birmingham</b></p> <p>I'm the thematic lead for the humanities section of the IGI (Institute for Global Innovation) project on AMR at the University of Birmingham; my research interests are in the modern history of sciences affiliated to medicine, including physiology, genetics, microbiology, etc – and in the broader history of public health, and public responses to health care interventions. I have an undergraduate degree in genetics, and worked (briefly) in public health at a local health authority.</p>
	<p><b>Vrinda Nampootheri</b> <b>Amrita Institute of Medical Sciences, Amrita Vishwa Vidyapeetham, Kochi, Kerala ,India</b></p> <p>The role and contribution of clinical pharmacists in antimicrobial stewardship in secondary care in India. The utility of social science research in developing contextually fit and sustainable stewardship programmes.</p>



**Wirun Limsawart**  
**Ministry of Public Health, Thailand**

I am a physician-anthropologist and a researcher of the Society and Health Institute, Ministry of Public Health, Thailand. My researches focus on the use of the “bio-social interaction framework” — linking in-depth biological studies and social analysis—to understand the global and local problems of antimicrobial resistance. My particular interest is the intersection of the problem of drug-resistance tuberculosis (TB) and universal health coverage (UHC) especially the assemblage of global bureaucratization that effects lives of TB inflicted mobile populations—migrants, refugees, stateless people, and the like—and dominates the health policy and practice of caregiving by healthcare workers—professional and non-professional.



**Yuzana Khine Zaw**  
**London School of Hygiene & Tropical Medicine**

I am currently funded for a doctoral studentship under the social science arm of the broader FIEBRE study. This study aims to explore the causes of febrile illness in South East Asia and sub-Saharan Africa (Malawi, Mozambique, Zimbabwe, Laos, Myanmar). The social science component (Malawi, Zimbabwe, Myanmar) will focus on understanding how care-seekers, clinicians, and other stakeholders conceptualise fever and appropriate antimicrobial use. My specific research area is in Myanmar and I am interested in exploring the intersection of gender and care among households and communities.



**Zane Linde-Ozola**  
**University of Leeds**

Knowledge practices of AMR; Anthropology of AMR; AMR policy and practice in developing contexts

## Presentation Abstracts

<b>Theme: Care</b>
<b>Author(s): Katharina Rynkiewich<sup>1</sup></b> <b>Institution(s): <sup>1</sup>Washington University in St. Louis</b>
<b>Beyond the Nudge: How Hospital-Based Practitioners Navigate Antimicrobial Stewardship</b>
Antimicrobial stewardship is touted as a set of interventions well-suited to help solve the problem of antimicrobial resistance (Barlam et al 2016). Though stewardship is a field in flux, interventions have tended to lean heavily on behavioral economics and neoliberalism (Dyar et al 2017). Indeed, stewardship researchers that I have worked with identify the need to “change the culture” by “targeting problem (individual) prescribers.” Drawing from 18-months of anthropological fieldwork in an urban American set of medical institutions, I will describe a view from below focusing on the everyday experiences of hospital-based practitioners involved in antimicrobial stewardship. Specifically, I will focus on the calculations that hospital-based practitioners make caring for patients while balancing roles as either a “champion” or “target” of antimicrobial stewardship interventions. I demonstrate that the social dynamics of medical institutions present individual practitioners with an embodied sense of biomedical authority while at the same time unveiling the flexibility of the hierarchies and guidelines surrounding them (Broom et al 2014). The way antimicrobial stewardship is framed institutionally and among individual practitioners fits uncomfortably within existing frameworks of practice in biomedical institutions, this paper will attempt to dive into this murky landscape of care.

<b>Theme: Care</b>
<b>Author(s): Artricia Rasyid<sup>1</sup></b> <b>Institution(s): <sup>1</sup>University of Cambridge</b>
<b>The mustahiq pharmaceutical self as a trope for ‘polythetic’ consciousness: Ethnography of amoxicillin in Indonesian mosque-based health programs</b>
This research is based on ethnographic analyses at two mosques in Jakarta, Indonesia, which run free-of-charge Teras Sehat (Healthy Terrace) programs funded by the Indonesian National Board of Zakat (BAZNAS). Consequently, the patients’ profiles are singular, comprising of exclusively the mustahiq or “people deserving of the Islamic zakat (alms)”, typically the Indonesian Muslim poor. This research situates how pharmaceutical practices on amoxicillin underlie ‘polythetic’ consciousness. By invoking Bourdieu’s polythetic consciousness, I argue that the logic of, and practical orientations toward, pharmaceutical behaviors (i.e. prescription and consumption of amoxicillin) deploy multiple meanings combining the symbolic and the material. Medications signify illness identities utilizing metaphoric associations. At the level of the symbolic, patients’ ubiquitous request for amoxicillin is rife with metaphors for modernity. Through hearsay and the media, patients tie amoxicillin specifically with the idea of a productive self: recovering back to health with a fast-reacting drug. Amoxicillin acts as a buzzword through which patients define themselves as an ‘in-the-know’, instead of impoverished and unknowledgeable, mustahiq. Finally, I construe that the physician’s prescription of amoxicillin takes the form of a ritualized technology of care, a token through which the physician lends legitimacy to the patient’s illness and performs his care, amid Indonesia’s unequal health infrastructure.

<b>Theme: Care</b>
<b>Author(s): Meixuan Chen<sup>1</sup> Helen Lambert<sup>1</sup>, Christie Cabral<sup>1</sup>, Paul Kadetz<sup>2</sup></b> <b>Institution(s): <sup>1</sup>University of Bristol, <sup>2</sup>Drew University</b>
<b>Physicians’ clinical realities and perspective on antibiotics use in rural China</b>
"This presentation focuses on physicians’ social-economic and institutional positioning and perspectives on antibiotic use in rural health facilities in China. In everyday clinical reality, they cannot afford to worry about the “long-term bigger picture of the AMR threat”. There is a tension between physicians’ knowledge of “rational” use of antibiotic, and practices in everyday consultancy, shaped by the everyday immediacy of the frontline and physicians’ social-economic position. Physicians in rural health facilities often view themselves as having low social-economic status in the hierarchical Chinese health service provision system. They face various social-economic and medical pressures and uncertainty, feeling obliged to prescribe antibiotics when the necessity is not warranted, in situations “when antibiotics can be prescribed but does not have to be used”. They see themselves having caring responsibilities for their immediate patients, and say they cannot afford to worry about the wider threat of AMR. They draw on the powerful public discourse of “suzhi” (human quality) in the wider context to legitimize their use of antibiotics and blame the patients, by characterizing rural patients as having inherently low “human quality”. On the other hand, physicians have a high “human quality” in the imagined social-economic hierarchy.

<b>Theme: Care</b>
<b>Author(s):</b> Mike Kesby <sup>1</sup> , Katherine Keenan <sup>1</sup> , Stella Neema <sup>2</sup>
<b>Institution(s):</b> <sup>1</sup> University of St Andrews, <sup>2</sup> Makerere University
<b>Seeking UTI care ‘that works’ in Uganda: work in progress</b>
Antimicrobial resistance demands an interdisciplinary response that draws insights from both biomedical and social science. But this is the easy part: work across disciplinary boundaries is often less problematic than communication across epistemological ones. Moreover, the challenge is not only to attend to ‘the social’ in AMR, but also to attend to the genomic and pathogenic in the social. Perhaps ‘new materialism’ offers a single epistemological perspective from which to explore assemblages of human and non-human actants, material objects and flows, and discourses and practices. Again, this is the easy part: how to design research programs where qualitative and quantitative, and social and medical data are collected synergistically and analyse integratively? This paper begins to address these issues by drawing on pilot data from the HATUA project (an international, interdisciplinary study of the drivers of AMR in Urinary Tract Infections in three East African countries). Focus group respondents from diverse communities describe complex health-seeking behaviours that move back and forth between folk, popular and professional sectors, and proscription, self-medication and drug experimentation. In the context of limited resources, AMR, and unregulated pharma, care ‘that works’ emerges from a complex of bio-social interactions.

<b>Theme: Ecologies</b>
<b>Author(s):</b> Stephanie Begemann <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> University of Liverpool
<b>Antibiotic policies in the UK dairy industry: unravelling the practices behind the numbers</b>
This PhD has used a qualitative study design to explore how the UK dairy industry develops and implements antibiotic policy, and how this impacts on dairy antibiotic use as public health risk. A multi-sited ethnographic has been used which involved a policy document analysis, in-depth interviews with key dairy stakeholders, participant observation of veterinarians in practice and the observation of policy transfer during farmer meetings from retailers to farmers. Adopting a Science and Technology theoretical framework, fieldwork results indicate that antibiotic policies in the UK dairy industry only partially address the complex network of people, animals and the environment in which antibiotics circulate. Although UK milk processors and UK retailers have taken up the lead to produce dairy antibiotic policies, the policies are fragmented and seem to rather benefit market purposes than address structural issues in UK dairy production systems. At the same time, the policies fail to assess the complex interplay of antibiotic exchange between veterinarians and farmers. Hence, if we want to reduce the human health risks of agricultural antibiotic use, we need to evaluate agricultural antibiotic practices beyond the achievement of antibiotic reduction targets.

<b>Theme: Ecologies</b>
<b>Author(s):</b> Miriam Kayendeke <sup>1</sup> , Laurie Denyer Willis <sup>2</sup> , Susan Nayiga <sup>1</sup> , Sarah Staedke <sup>2</sup> , Esther Buregyeya <sup>3</sup> , Clare IR Chandler <sup>2</sup>
<b>Institution(s):</b> <sup>1</sup> Infectious Diseases Research Collaboration, <sup>2</sup> London School of Hygiene & Tropical Medicine, <sup>3</sup> Makerere University
<b>Assessment of the use of antibiotics and its social context on poultry and piggery farms in Wakiso district, Uganda</b>
Antimicrobial resistance has become a global public health priority. The use of antibiotics in food-producing animals is closely related to those used in human medicine and have been reported to select for resistance in these animals. Antimicrobial resistance (AMR) policy meant to reduce antibiotic use is largely based on individual behaviour change theory, yet these individual approaches are inadequate at explaining why antibiotics are widely used in animal husbandry. This study seeks to explore how antibiotics used in animal husbandry are understood within the wider social and economic context in Uganda. The study will employ rapid ethnography observations on a pig and poultry farm teasing out the role antibiotics play role to the farmer’s livelihood, daily care and health provision in poultry and piggery husbandry. In depth interviews will be held with farmers and feed sellers exploring antibiotic use in the context of daily farm life. The results will provide useful information about the antibiotics used a in social and economic context. This shall inform interventions at the micro and macro level to reduce reliance on antibiotic medicines and improve use.

<b>Theme: Ecologies</b>
<b>Author(s): Claas Kirchhelle<sup>1</sup></b>
<b>Institution(s): <sup>1</sup>University of Oxford</b>
<b>Pharming Animals – antibiotics in global food production (1935-2013)</b>
<p>Since their advent during the 1930s and 1940s, antibiotics and sulphonamides have not only had a dramatic impact on human medicine but also on food production. On farms, whaling and fishing fleets, and in food processing, antibiotics were used to treat and prevent animal and plant disease, increase feed conversion, and preserve food. Their rapid diffusion into nearly all areas of food production and processing was initially praised as a story of scientific progress. However, from the late 1940s onwards, agricultural antibiotic use has also given rise to continuous conflicts about drug residues, antimicrobial resistance (AMR), and antibiotic-facilitated animal welfare abuse. Perceptions of and solutions to antibiotic hazards have differed significantly. This presentation reconstructs the global history of antibiotic use, perceptions, and regulations from the 1930s onwards. By comparing the rise and evolution of different antibiotic infrastructures, it examines why the regulation of antibiotics differs internationally. It also shows that the development of effective antibiotic stewardship requires an historical understanding of the deep-rooted cultural, social, and economic factors driving drug consumption and fragmenting risk perceptions.</p>

<b>Theme: Ecologies</b>
<b>Author(s): Richard Helliwell<sup>1</sup>, Sujatha Raman<sup>2</sup>, Carol Morris<sup>1</sup></b>
<b>Institution(s): <sup>1</sup>University of Nottingham, <sup>2</sup>Australia National University</b>
<b>Making chemical infrastructures (in)visible: Environmental Imaginaries and the environmental sciences of antimicrobial resistance</b>
<p>Positioned as representing hope that human life can flourish in the face of pathogenic life, paradoxically the use of antimicrobials has also come to represent a threat to their future efficacy. Once susceptible microbes have become resilient to the toxic effects of antimicrobials and are becoming significant problems in human health care settings. However, AMR is not only centred on its impacts on diseased bodies, but also includes the environment. The ‘environmental dimension of AMR’ engages with questions regarding antimicrobial agents within environmental systems, their impacts on microbial communities and their implications for human health outcomes. In investigating these questions, the field enacts culturally specific forms of imagining the environment which shape the practices and places through which antimicrobials, resistant microbes and genes are made visible, while effacing others. This paper investigates what environmental imaginaries are evident in environmental AMR research, and how they are shaping the practices and places through which environmental sciences attempt to make visible antimicrobial pollutants, resistant bacteria and genes. In doing so we draw attention to the tensions between an imagined, flattened and global environment, and the environment as encountered through scientific practices, which reveals the uneven spatial and temporal distributions of chemical infrastructures.</p>

<b>Theme: Pharmaceuticals and Markets</b>
<b>Author(s): Fosiul Alam Nizame<sup>1</sup>, Mohammad Rofi Uddin<sup>1</sup>, Nirnita Khisa<sup>1</sup>, S. M. Salim Akter<sup>1</sup>, Emily Rousham<sup>2</sup>, Patricia J Lucas<sup>3</sup>, Leanne Unicomb<sup>1</sup>, Mohammad Aminul Islam<sup>1</sup>, Papreen Nahar<sup>4</sup></b>
<b>Institution(s): <sup>1</sup>International Centre for Diarrhoeal Disease Research, Bangladesh, <sup>2</sup>Loughborough University, <sup>3</sup>University of Bristol, <sup>4</sup>University of Durham</b>
<b>Perspectives of ‘unqualified’ practitioners on antibiotics in Bangladesh</b>
<p>In the context of the global emerging antimicrobial resistance (AMR) crisis, Bangladesh is particularly vulnerable due to unregulated and ‘irrational’ use of drugs within the large informal health sector. There are more than one-hundred thousand unlicensed retail drug shops involved in selling drugs over-the-counter. The current study explored the knowledge and practice of antibiotic provision among ‘unqualified’ drug sellers in rural and urban areas. The study used various qualitative research methods. The preliminary results show that knowledge and practice varies greatly among untrained drug sellers ranging from gross ignorance about antibiotics and rational use due to limited current knowledge and responsible practice. The study also revealed that the drug sellers have developed certain local vocabularies about antibiotics, such as ‘half-antibiotic’, ‘full-antibiotics’, ‘medicines of power’, ‘disease remover’. The majority understood drug resistance as a ‘side effect’ of antibiotics. Using the theory of ‘Social Lives of Medicines’ this paper argues that the unqualified drug sellers have a significant role in the biographies of antibiotics in Bangladesh and their misunderstandings about antibiotics therefore can contribute to the rise of AMR. The study findings have been used to develop communication materials to improve the rational dispensing of antibiotics.</p>

<b>Theme: Pharmaceuticals and Markets</b>
<b>Author(s):</b> Carla Rodrigues <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> University of Amsterdam
<b>Self-medication with antibiotics in Maputo: practices, rationales and social relations</b>
<p>Practices of self-medication, as a form of self-care, have always triggered controversial views. Yet, it is a common practice worldwide. Self-medication often involves the use of both over-the-counter and prescription-only medicines, including antibiotics, anti-malarial drugs and others. Over the last two decades, multiple studies on self-medication with antibiotics, conducted in different parts of the world, have determined prevalence, risks and factors related to ‘inappropriate use of antibiotics’. Yet, much of this literature departs from a normative approach that tends to obscure and denigrate individuals’ reasoning behind such practices. Using mixed-method ethnographic research in Maputo, Mozambique, this paper aims to present and discuss self-medication practices in light of the logics and rationales of local users. My theoretical approach draws from the notion of pharmaceuticalisation of everyday life and problematises notions of risk perception and management, access to and use of various sources of information, multi-layered trust and social relationships. Focusing on the management of common symptoms such as fever, cough, diarrhoea, headaches, I analyse how individuals’ own or socially shared experiences, articulated with information provided by different sources, shape the kind of knowledge they develop around different medicines, and particularly about antibiotics, and inform their practices and attitudes towards self-medication.</p>

<b>Theme: Pharmaceuticals and Markets</b>
<b>Author(s):</b> Luechai Sringeranyuang <sup>1</sup> , Panoopat Poompruek <sup>2</sup> , Phakha Whanpuch <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> Mahidol University, <sup>2</sup> Silpakorn University
<b>Rational use of antibiotics in Thailand: realities from local health facilities in central Thailand</b>
<p>In Thailand, Rational Drug Use-RDU Policy has been launched since 1981. Throughout years of implementation, achievements were hindered by a lot of barriers. However, in the recent Five-Year National Drug Development Plan (2012-2016), RDU was one important national strategy. In 2014, one strategic move was the implementation of national Rational Drug Use Hospital- RDU Hospital under collaboration of many concerned authorities including MoPH, National Health Security Office, Medical School Network Consortium etc. This paper relies on an exploratory ethnographic fieldwork which is part of a collaborative project on anthropological study of antimicrobial resistance in Thailand- AMIS. Highlights of this paper, basing on qualitative interview and observation in a community hospital, health centre and households, are that, although the RDU policy has been clearly advocated, 1) rational use of antibiotics for URI, acute diarrhoea, fresh traumatic wound and vaginal delivery of term labour was enforced, 2) the implementation was restrained by both provider/supply and user/demand sides, 3) doctor’s power and professional freedom as well as unreadiness of lab facilities and hospital beds failed the hospital in following the RDU standard procedure, 4) popular beliefs and expectations of the patients led to strong demand for and pressure to health care providers to give antibiotics especially at the health centre, 5) antibiotics are widely and easily accessible especially from local pharmacies, private clinics and hospitals. The interaction of these contextual factors is found pushing the success of the RDU policy implementation away from the goals set.</p>

<b>Theme: Pharmaceuticals and Markets</b>
<b>Author(s):</b> Nicolas Fortané <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> INRA – French Institute for Agricultural Research
<b>The evolution of the veterinary drug market and antibiotics prescribing practices of French veterinarians</b>
<p>In France, the re-emergence of the public problem of AMR in livestock at the end of the 2000s largely focused on the supposed conflict of interest of veterinarians, who have a monopoly on both prescription and delivery (and therefore sale) of antimicrobials. Although this monopoly has been safeguarded thanks to intense political lobbying by the profession, various policy measures have been adopted to better regulate the veterinary drug market, in particular the conditions under which antimicrobials are prescribed and sold. In fact, by promoting a change in the business model of veterinary practices (income structure less dependent on the sale of medicines), these measures encourage a transformation of the knowledge and working conditions of veterinarians whose roots are older. Preventive veterinary medicine, which generally consumes less antibiotics, has its origins in the intensification of pig and poultry farming in the 1980s, which encouraged the development of epidemiological approaches and franchised veterinary practices whose services offer (and therefore income structure) are more diversified. On the other hand, recent policy measures tend to generalize this model of veterinary medicine, which until then was confined to a very specific segment of the profession, but which could rapidly become dominant. This work is part of a research project on the evolution of the French veterinary drug market and is based on some thirty sociological interviews with poultry and pig veterinarians in western France.</p>

<b>Theme: Knowledge</b>
<b>Author(s):</b> Luke Curtis Collins <sup>1</sup> , Rusi Jaspal <sup>2</sup> , Brigitte Nerlich <sup>3</sup>
<b>Institution(s):</b> <sup>1</sup> Lancaster University, <sup>2</sup> De Montfort University, <sup>3</sup> University of Nottingham
<b>Who or what has agency in the discussion of antimicrobial resistance in the UK news media (2010-2015)?</b>
The increase in infections resistant to the existing antimicrobial medicines has become a topic of concern for health professionals, policy makers and publics across the globe; however, among the public there is a sense that this is an issue beyond their control. Research has shown that the news media can have a significant role to play in the public's understanding of science and medicine. In this article, we respond to a call by research councils in the United Kingdom to study antibiotic or antimicrobial resistance as a social phenomenon by providing a linguistic analysis of reporting on this issue in the UK press. We combine transitivity analysis with a social representations framework to determine who and what the social actors are in discussions of antimicrobial resistance in the UK press (2010–2015), as well as which of those social actors are characterised as having agency in the processes around antimicrobial resistance. Findings show that antibiotics and the infections they are designed to treat are instilled with agency, that there is a tension between allocating responsibility to either doctors-as-prescribers or patients-as-users and collectivisation of the general public as an unspecified 'we': marginalising livestock farming and pharmaceutical industry responsibilities.

<b>Theme: Knowledge</b>
<b>Author(s):</b> Esmita Charani <sup>1</sup> , Gabriel Birgand <sup>1</sup> , Jean Ralph Zahar <sup>2</sup> , Sanjeev Singh <sup>3</sup> , Ingrid Smith <sup>4</sup> , Alison Holmes <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> Imperial College London, <sup>2</sup> University of Sorbonne Paris, <sup>3</sup> Amrita Institute of Medical Sciences, <sup>4</sup> World Health Organisation
<b>Exploring the use of animation to promote the role of social science research as a tool for engagement with healthcare professionals on antimicrobial stewardship</b>
Aims: Investigating animation as a platform to promote and communicate social science research findings amongst healthcare professionals (HCP). Methods: We have co-developed scripts with country collaborators and healthcare professionals based on findings of two social science research studies. Through a competitive process two animation companies were invited to develop animation wireframes. Results and next steps: One animation based on implementation of antimicrobial stewardship across five countries (England, France, Norway, India, Burkina Faso) has been developed with Beluga Animation and tested on a group of HCP. Using the feedback, the animation is in post-production editing stage to develop an engaging narrative. The second animation is being developed with award-winning company, Second Home Studios and will be a short effective summary of an ethnographic study investigating differences in antibiotic prescribing between medical and surgical teams. Using two different animation companies enables us to test different media and provide learning in how animation and storytelling can be used to disseminate social science research findings. The final animations will be shared with HCP across participating countries through social media and networks. Impact will be measured using video analytics e.g. watch-time, traffic source and views. A question-time style event with HCP will be held showcasing the animation and generate debate on key findings. The animation will be demonstrated at the ESRC symposium.

<b>Theme: Knowledge</b>
<b>Author(s):</b> Salla Sariola <sup>1</sup> , Elina Oinas <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> University of Helsinki
<b>Living-with Microbes in the Era of Antimicrobial Resistance: International Vaccine Development in Benin, West-Africa</b>
The rise of anti-microbial resistance has pushed for the development of various forms of new health care technologies that aim to circumvent the use of antibiotics. This paper explores a vaccine study in Benin, West Africa, that aims to prevent bacteria-borne diarrhoea and the development of drug resistant strains. The vaccine is a new technology in the post-antibiotic era that follows the logic that as diarrhoea presents a risk for acquiring AMR, preventing diarrhoea protects also from acquiring AMR. The paper analyses global circulation of AMR through an ethnographic case study of encounters between North European tourists, who double-act as participants in the vaccine trial, with local populations of Grand Popo, Benin. As part of the vaccine trial, the tourist-cum-research volunteers spend two weeks in the region chosen for its moderate levels of infectious diseases and antimicrobial resistance as well as historical, cultural significance. While holiday-making in Benin, these study participants become exposed to various new bacteria; some fall ill with diarrhoea, while other don't. In this encounter, social and microbial cultures meet and mingle. Based on research conducted in 2017-2018, paper seeks to understand how all those involved in the trial understand microbes and anti-microbial resistance. Their experiences in the vaccine study reveal the different modes of discussing, embodying, embracing, and resisting encounters with 'the local', both human and microbial. The paper discusses the shifting ways the tourists embody and discuss their bodily contours and assumed embodied integrity, porousness and fragility, in relation to their environments.

<b>Theme: Knowledge</b>
<b>Author(s):</b> Andrea Núñez Casal <sup>1</sup>
<b>Institution(s):</b> <sup>1</sup> Goldsmiths, University of London
<b>Birthing antimicrobial resistance: Feminist para-ethnographies as interdisciplinary care knowledge practices</b>
<p>In this paper, I ask: Is it possible to develop a ‘critical friendship’ (Rose, 2013) between the social sciences and humanities and the life sciences in order to find alternative solutions to AMR? In response to this question, I engage with decolonial literature on Buen Vivir (De La Cadena, 2010; Gonzalez and Macias Vazquez, 2015; Gudynas, 2011; Harding, 2016; Lanza, 2012; Leon, 2012; Walsh, 2010) and feminist debates on care and care practices (Bellacasa, 2011, 2012; Martin, Myers, Viseu, 2015; Mol, 2008). I develop what I call ‘feminist para-ethnographies,’ an intersectional method that entangles embodied experiences of AMR and antibiotic use with ethnography and ‘fugitive’ qualitative data in technoscientific claims (Nading, 2016). I propose feminist para-ethnographies as an interdisciplinary and biosocial method to tackle both antibiotic overuse and AMR through the realisation of what Denise Riley calls ‘socialised biology’ (Riley, 1983), which refers to biology “lived within particular lives” (ibid: 40). Feminist para-ethnographies is a critical method that records, documents and provides situated accounts of embodied biological experience. It complements what ‘evidence-based biomedicine’ fails to register and see. In sum, Feminist para-ethnographies figures as a theoretical and methodological proposition for a future of interdisciplinary knowledge practices of co-existence, care and decoloniality.</p>

## Poster Abstracts

<b>Author(s):</b> Alena Kamenshchikova <sup>1</sup> <b>Institution(s):</b> <sup>1</sup> Maastricht University
<b>Multiple versions of “One Health”: an analysis of policy discourses in international politics of antimicrobial resistance</b>
One Health is a relatively new paradigm aiming to address the problem of antimicrobial resistance (AMR) by bridging diverse knowledge and practices dealing with the health of humans, animals, and the environment. This approach has been widely accepted and embedded into the international policies against AMR, including such documents as the Global Action Plan on AMR established in 2015, and a European One Health Action Plan against Antimicrobial Resistance accepted in 2017. Though One Health aims to build the collaboration and dialog between different scientific disciplines and professions, diverse policies articulate different disciplinary framings of bacteria-host relationships and come up with different strategies. In the presentation I will talk about the ways One Health has been adapted and articulated in different international policy guidelines on AMR, and what kind of symbolic meanings (what is AMR?) and material practices (who sets up the agenda about AMR? which field attracts the most AMR funding?) it enables. Based on this I will discuss how the notion One Health shapes a specific arena of international AMR politics.

<b>Author(s):</b> Alexandra Hughes <sup>1</sup> , Emma Roe <sup>2</sup> , Suzanne Hocknell <sup>1</sup> <b>Institution(s):</b> <sup>1</sup> Newcastle University, <sup>2</sup> University of Southampton
<b>Corporate food retailers, meat supply chains and the responsibilities of tackling- antimicrobial resistance (AMR)</b>
This paper discusses research addressing AMR in the global food system and the role of retailers in tackling its challenges, including theorization of corporate knowledge, governance and practice. Building on current geographical conceptualization of AMR in food production networks, we develop a critical dialogue between theories associated with political economy and assemblage to grasp how AMR works through agro-food networks. We do so because research into the challenges of AMR in global food systems requires engagement with a concatenation of pressures including: the dynamism of microbial life; performances of corporate control; governance through neoliberal standards; metrics and modes of surveillance; and the movement of resistance genes and antimicrobial residues through food systems traversing national borders and global North-South geographies. We reflect on how theoretical perspectives on pork and poultry supply chains, including agrarian political economy, global value chains, governmental perspectives on economy and notions of economization and assemblage, shed light on the architectures, logics and materiality of food systems through which AMR travels and is envisioned and managed. More-than-human geographies are brought into conversation with this literature to grasp relationships between global networks, corporate practice and the liveliness of the microbial world entangling with the materialities of food matters.

<b>Author(s):</b> Andrea Butcher <sup>1</sup> <b>Institution(s):</b> <sup>1</sup> University of Exeter
<b>Aquaculture Ponds in Ontological Refraction</b>
Taking inspiration from Annemarie Mol's <i>The Body Multiple</i> (2002), I consider how aquaculture ponds, their aqueous and [anti]microbial inhabitants are perceived by those who work with them. AMR is our unwelcome houseguest squatting in bodies, environments and food production systems. Initiatives for tackling AMR call for collaborations that can implement change across sites, locales and practices, but do the actors involved perceive AMR, its dwellings and behaviours in the same way? Drawing upon personal experience working for a multidisciplinary collaboration that examines disease and antibiotic use in Bangladeshi aquaculture, I observe how aquaculture ponds are imagined by those brought together to work with them: the farmer, the fisheries expert, the bioinformatics specialist and the social scientist. I illustrate how practices and interfaces shape ways of knowing ponds, their aquatic occupants and microbial communities: as monstrosities, behaviours to be managed, companion species we co-become with, or strands of DNA code. I ask how the various actors' practices shape how they 'care' for ponds, particularly those suffering disease or contaminated by chemical pollutants including antibiotics, before moving on to ask how these insights influence how we—as social scientists—inform debates about ways of tackling AMR as a global challenge.

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<p><b>Realist review of IPC measures: A conceptual framework for extraction of data from multiple disciplinary perspectives</b></p>
<p>Infection prevention and control (IPC) is a critical issue for action against antimicrobial resistance (AMR). In South Africa, within a context of care for DR-TB being decentralised to primary care clinics, IPC measures take on particular importance. The implementation of IPC measures, in themselves relatively simple and inexpensive, is frustrated by complex inter-relationships of health system components. Furthermore, the study of the diversity of IPC elements occurs from multiple discipline perspectives, with little integration of evidence across disciplines. Realist review has been proposed as a theoretical and interpretive strategy to synthesising explanatory evidence about the mechanisms and influences on health care programme implementation in specific settings. While the steps for conducting a realist review follow the standard steps of other structured reviews of the literature, and while publication standards for realist reviews have been published, little uniformity and transparency have been reported with regard to published realist reviews. No realist reviews of the implementation of IPC measures have been published. In order to conduct such a realist review, a conceptual framework will be presented to guide integrated extraction of data generated from multiple disciplinary perspectives.</p>

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<p><b>Antimicrobial stewardship: a principal-agent problem?</b></p>
<p>AMR has been characterized as a social dilemma: a situation in which a public good (in this case, antibiotic efficacy) is depleted due to over-exploitation. Social dilemmas are intractable because individuals are motivated to maximize individual payoffs, although the collective outcome is worse if all act in this way. In the case of antibiotic use, rather than individual agents acting on their own behalf in consuming or protecting the resource, access to the resource is principally controlled by prescribers. Antimicrobial stewardship interventions aim to shift doctors' prescribing behaviour to be more in line with the societal optimum. However, agency theory points to reasons why doctors may not act in line with stewardship goals, including adverse selection (relying on an agent who may not have the skills or ability to fulfil expectations), and moral hazard (lack of alignment of goals of the agent with the aspirations of the principal). Theories of social dilemmas and agency theory can provide an integrative framework to fully characterise the nature of the problem of antibiotic use, and an evidence base for the design and implementation of theory-based interventions to optimise prescribing.</p>

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<p><b>Roles of antibiotics in Fever Management in Chikwawa, Malawi</b></p>
<p>For many years in malaria-endemic areas, fever was treated presumptively with antimalarials. Since 2011, however, there had been efforts to integrate a rapid-diagnostic test (RDT) for malaria within the Integrated Management of Childhood Illness (IMCI) in order to improve rational drug use and quality of fever case management. While antimalarial use has decreased, one of the unintended outcomes of this test has been an increase in antibiotic use. This paper presents preliminary findings from an ethnographic study in Malawi that explores the emergent roles of antimicrobial medicines in the treatment of febrile illness, both within and beyond the formal sector. In particular, this paper seeks to move beyond the notion that antimicrobials are being 'irrationally used' and sheds light upon the social efficacy of medicines beyond their curative properties, including plugging gaps in care and gender relations that have been disrupted through enduring patterns of structural violence in the health system and everyday life. To illustrate these arguments, I draw upon a medicine survey, participant observation and in-depth interviews with a range of stakeholders in fever case management and antimicrobial use.</p>

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<b>Exploring antibiotic use in an urban informal settlement among daily wage earners in Kampala District, Uganda</b>
Antimicrobial resistance (AMR) is considered a major global health challenge with considerable economic and security repercussions. In literature AMR has been linked to ‘inappropriate’ use of antibiotics. Efforts to address AMR are geared towards creating awareness of AMR and ‘optimizing’ antibiotic use. Evidence to support interventions to address AMR is silent on social and cultural reasons for antibiotic use and misses the context for antibiotic use. To understand the social context of antibiotic use, I will explore antibiotic use among daily wage earners in Namuwongo informal settlement in Uganda. Informal settlements are characterized by poverty, poor housing and hygiene, which make the residents susceptible to illnesses and an appropriate site to explore the contributions of poor hygiene and poverty on use of medicines. The study will involve a medicines survey to document the medicines used and stored, ethnographic observations of daily life focusing on medicines use, sanitation and water access, interviews with residents to document use and sources of antibiotics and narratives of antibiotic efficacy. The findings will help articulate the role of antibiotics in enabling livelihoods, in a setting where medicines are accessed without a prescription and further inform interventions aimed at reducing reliance on antibiotics while minimising unintended consequences.

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<b>Nosocomial Transmission of DR-TB as a Contested Object of Policy Knowledge in the Development and Implementation of DR-TB IPC Policy in South Africa</b>
While most public awareness of and discourse surrounding drug-resistant TB (DR-TB) centres on the development of antimicrobial resistance (AMR) through incomplete TB treatment, community-acquired and nosocomial transmission of DR-TB has played an out-sized role in the DR-TB epidemic. This presentation is part of a RCUK-funded multi-disciplinary project on nosocomial infection prevention and control (IPC) for DR-TB in South Africa in an era of increasingly decentralised care. It presents findings from a study on DR-TB IPC policy development and implementation over the last 20 years. Using policy network analysis within a policy transfer approach, it considers how nosocomial transmission of DR-TB emerged and was transformed in DR-TB policy as a contested object of knowledge as the DR-TB epidemic came to light in South Africa. It examines in particular how this mode of infection sat in relation to policy and public understandings of, and responses to, DR-TB as a problem of antibiotic misuse. The presentation also considers how knowledge about and policy responses to nosocomial DR-TB infection were shaped by broader ecologies of evidence and activism in the policy development process, specifically, the role of qualitative evidence in policymaking, patient and provider experiences, and engagements with HIV activists and academics.

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<b>Mapping Microbial Stories: creative microbial aesthetic and cross-disciplinary intervention in understanding nurses’ infection prevention practices</b>
Consistent implementation of handwashing within the hospital environment remains a challenge in infection prevention (IP) procedures. IP is one of a number of measures to tackle antimicrobial resistance (AMR). A cross-disciplinary team were assembled to experiment with different ways of visualising the microbial. The results detail an experiment where nurses (n=2) performed a series of routine care procedures in a mock-ward setting where traces of coloured ultra-violet glow-powders had been purposely placed, firstly with routine hand-washing and secondly without routine hand-washing. A series of photos and nurse interviews explore nurse-microbial relations and the potential for affective and embodied encounters with microbial worlds to generate new insight in IP. We argue for creating unfamiliar aesthetics that engage the sensate as an intervention in established IP education. The aesthetic rendered invisible microbes visible through techno-artistic practice. The performance term ‘devising’ was used to analyse the cross-disciplinary methodological process. Finally, we consider the potential for nurses to act as microbial citizens as they extend their care for the human to entail the need to care for the microbial, perhaps not to kill but to relocate the risky pathogen, as part of a commitment to multispecies living in a world with AMR.

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<b>Antimicrobial resistance research and the making of a Norwegian bio-economy</b>
Biotechnology funding shall stimulate a bio-economy and solve societal challenges. However, how well do these two aims go together? Within antimicrobial resistance, the pharma industry has withdrawn from investing in innovative research. Due to the quick adaption of microorganisms, new antibiotics quickly miss their effectiveness and need to be replaced. Thus, they generate little profit for the industry. Still, many public research projects pursue research to solve the issue of AMR. Public funding organisations invest into these biotechnology projects in order to generate value and create jobs. However, AMR research rests uneasy at this interface because of the before mentioned challenges of translating research results into commercial products. This shows that we need to think about alternative models of marketization when it comes to antimicrobial resistance. Thus, contributing to a bioeconomy based on antibiotics might be a particular difficult endeavour. This presentation draws on participatory observation of and interviews with scientists and innovation facilitators working on AMR within a Norwegian biotechnology centre. Drawing on science and technology studies (STS), we analyse how these actors construct knowledge and action against AMR, with a particular emphasis on their innovation and commercialisation strategies.

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<b>Rethinking “Ordinary Fever” in Global Health: Algorithms and Classification Work in an Era of Antimicrobial Resistance</b>
In 2006, medical anthropologist Vinay Kamat explored reasons why, despite the high risk of malaria, mothers in Tanzania often delayed bringing febrile children to health facilities for care. Part of the story, he found, resided in a semantic equivalence between malaria and fever in the communication practices of facility staff that muddled the distinction between malaria and “ordinary fever”. While Kamat suggests a degree of medical paternalism was at play, this semantic ambiguity also reflects a deeper classificatory equivalence that has been embedded in the clinical algorithms designed for frontline care, such as the Integrated Management of Childhood Illness (IMCI). This paper explores the shifting role of the residual category of non-malarial (or “ordinary”) fever in the IMCI algorithm, from afterthought in the shadow of malaria in the 1990s and 2000s to high-risk category on the global health agenda in the era of antimicrobial resistance (AMR). Drawing on Bowker and Star’s (1999) work on classification, I focus on the work that IMCI and its classifications have been made to do in the making of global health. Who does this work? With what effects? And what is rendered visible and invisible? I pay particular attention to the way in which the tectonics are now shifting to accommodate non-malarial fever, new diagnostics and a world of previously-obscured microbial pathogens. I conclude by suggesting a renewed focus on illness classification work both informal and informal, an approach which is guiding our current work on AMR in Zimbabwe, Malawi and Myanmar.

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<b>A sociological study on antimicrobial use and resistance in India</b>
Sociological explorations of the global antimicrobial crisis have thus far almost exclusively centred on economically wealthier nations. This is despite the recognition of economically poorer nations as sites of considerable, escalating, and often unregulated, antibiotic use. Nowhere is the reality and effects of AMR more obvious than in India, yet sociological research in the country is limited. This project aims to redress this imbalance by exploring the social dynamics of antimicrobials in the Indian context through ethnography and qualitative interviews with doctors, community health practitioners, pharmacists and pharmacy employees, community members, hospital regulators and pharmaceutical company employees in Hyderabad, India. The main focus will be on gaining an understanding of how enduring and emerging inequalities, infective risk and uncertainty, labour risks and precarious work, improvisation and self-medication, and informal and formal pharmaceutical economies shape antimicrobial use in the subcontinent. By utilising a critical sociological lens we hope to better understand the social, cultural and economic drivers of antimicrobial use in India (and beyond).

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<b>Tinker, Tailor, Soldier, Sailor: Contextualising Antibiotic Prescribing and Dispensing across Low-Middle Income Country settings</b>
This paper challenges the current global discourse of rational and irrational prescribing and dispensing of antibiotics. Using interview data collected across nine Low-Middle Income Country study sites, the paper dispels simplistic framings of the relationship between knowledge and action, considering how ‘care’ in its diverse guises acts as a crucial fulcrum for antibiotic prescribing and dispensing practice. The paper uses four conceptual lenses; tinkering, tailoring, soldering and sailing, to explore how practitioners understand their role as caregivers in relation to antibiotics and AMR. It considers how practitioners tinker and tailor (Chandler et al. 2011) with antibiotic prescriptions to accommodate economic and resource constraints, offering semblances of care in constrained environments (Mol 2008, 2010). It explores soldiering, considering how the historic use of war metaphors in medicine (Sontag 1978 Martin 1994) conditions practitioners’ to perceive their role in adversary terms, as protectors of vulnerable patients or stewards of precious medicines. Through the concept of sailing it interacts with an emerging ‘anthropology of hope’ (Robbins 2013), asking what a hopeful future in the wake of AMR looks like to diverse actors across different settings and with what consequences for the provision of care.

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<b>Antibiotics and Activity Spaces: An Exploratory Study of Behaviour, Marginalisation, and Knowledge Diffusion</b>
This presentation summarises the overall findings of the “Antibiotics and Activity Spaces” project, funded by the UK Research Council’s AMR Initiative. The project responds to the deficiencies of leading UK and global strategy papers to “improve” population behaviour to fight AMR, which are limited to education and awareness-raising campaigns. Our study explores people’s antibiotic-related health behaviour through three research questions: RQ1. What are the manifestations and determinants of problematic antibiotic use in patients’ healthcare-seeking pathways? RQ2. Will people’s exposure to antibiotic awareness activities entail changed behaviours that diffuse or dissipate within a network of competing healthcare practices? RQ3. Which proxy indicators facilitate the detection of problematic antibiotic behaviours across and within communities? Our interdisciplinary research involves representative and social network surveys of treatment seeking behaviour among 4,800 rural dwellers in northern Thailand (Chiang Rai) and southern Lao PDR (Salavan). Additional 60 cognitive interviews facilitate survey instrument development and data interpretation. This project contributes unprecedentedly detailed data on micro-level treatment-seeking behaviour to improve the understanding of behaviour beyond awareness and free choice, highlighting for example decision-making constraints, problems of marginalisation and lacking access to healthcare, and competing ideas about desirable behaviour.

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<b>Eliciting societal decisions regarding antimicrobial consumption: can health economic methods help?</b>
The antimicrobial market is complex; with negative externalities arising from antimicrobial consumption (resistance) and third-party agents purchasing the goods (doctors purchasing on behalf of patients). In an attempt to tackle antimicrobial resistance (AMR), antibiotic optimisation policy has been put in place targeting third-party agents (prescription reduction targets) and patients (public awareness campaigns). Research suggests that large, economic impact estimates of AMR do not influence public knowledge and perceptions as much as individual-level messages. In order to understand patients' decision making within the market of antimicrobials, we tested the use of health economic theory usually utilised in estimating health utility. The standard gamble approach was piloted on the public, health professionals and WHO Europe Antibiotic Awareness country leads. The pilots suggest this approach can provide insights on why patients make such choices in addition to which choices are made, suggesting that antibiotic effectiveness and direct community impact may reduce patient demand for antibiotic consumption. Further research is needed into the evaluation of whether actually engaging in the process of standard gamble is a method of knowledge mobilisation in itself through impacting participant's views on AMR. The value of this method in relation to discrete choice experiments <sup>1</sup> should also be further explored.

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<b>An anthropological exploration of antimicrobial use among commercial poultry farmers in Bangladesh: a study protocol</b>
Background: Antimicrobial resistance (AMR) is a serious threat for global public health and food security. The excessive use of livestock antimicrobial contribute rapid dissemination of AMR globally. In Bangladesh, AMR has been frequently identified in environment due to the extensive use of antimicrobials in different sectors including commercial poultry production. This anthropological study will explore the livestock antimicrobial use for commercial poultry production. Methods: Considering pharmaceutical anthropology approach and complex realities of livestock antimicrobial use, this ethnographic study will be conducted for one year in a particular area, where independent and contract poultry farms are existing. By applying participant observation and case study methods, we can able to explore the cultural meanings of antimicrobial uses, forms of antimicrobial transactions, settings of the farms, reasons and patterns of antimicrobial uses, and the links between farms and markets. Discussion: Drug use including antimicrobial is extremely complex in most of the low-middle income countries like Bangladesh. The increased use of antimicrobial with the related public health impacts justifies the importance of rational use of antimicrobials in poultry sector. The findings of this study can contribute to help policy makers to take effective initiatives to the prudent use of antimicrobials in commercial poultry production.

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<b>Consequences of the imperative to restrict antimicrobial medicine use in Uganda: what is health care when antimalarials and antibiotics are under threat?</b>
In the face of rising threats of resistance to our commonly used antimalarials and antibiotics, clinicians are urged to reduce the prescription of these medicines. The logic of targeting medicines to specific cases is appealing, for example through rapid diagnostic testing. However, data from Uganda echoes findings elsewhere that restricting one antimicrobial can increase the use of another. This suggests that these medicines are playing more than simply a curative role. It is important to understand the meaning of these medicines beyond the biological. This research asks, "What happens to the way health care is delivered and sought in the face of the imperative to reduce antimalarial and antibiotic medicines use in Uganda?" The research will follow ethnographic methods primarily focusing on people engaging in public and private health care settings in Tororo district, eastern Uganda. This research will provide a unique perspective on the role of medicines for health and societies more generally. In so-doing, the research will provide alternative ways to reduce reliance on these medicines that address structural rather than individual level issues. The research will also provide evidence on the consequences of restricting medicines. This will allow for the tailoring of future interventions to avoid unintended consequences.

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**Microbiopolitics of human-microbe relationships: fight against hospital superbugs in Latvia**

The misuse of antibiotics is one of the leading causes of hospital-associated infections. At the same time, hospital-associated infection control is defined as one of the cornerstones in preventing antimicrobial resistance. Drawing on ethnographic material from a PhD research, the paper explores the management of hospital-acquired infections in Latvia. I propose 'microbiopolitics of human-microbe relationships' as a productive concept for exploring and rethinking infection control, safety, and quality of healthcare. Placing human-microbe relationships and their governance at the centre, the paper also asks if relations are currently unused conceptual and pragmatic 'treasure' in the current AMR research and practice.





# AMIS

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