

The Soulsby Foundation Newsletter



Welcome

Welcome to the 2019 newsletter of The Soulsby Foundation.

2019 has been a very busy year for the foundation trustees. Three new trustees have joined the board, who have all been involved in the selection process for the current group of Soulsby Fellows. Of the 16 fellowship applications that qualified, we funded three candidates. The board wished to award at least two more Soulsby Fellowships to excellent projects, but sadly we are constrained by limited funds.

We are proud of the fellowships. Chair of the trustees, Judy MacArthur Clark, on awarding of this year's fellowships, says why: 'The Soulsby Fellowship offers the opportunity for young veterinary and medical scientists

of high potential to deliver really impactful projects in the field of One Health globally. In just a few years, we have learnt that remarkable projects can be delivered by remarkable people on a relatively small budget.' She added: 'This year's fellows are great examples of the talent Lord Soulsby can inspire through the foundation named after him.'

This year's Soulsby Lecturer is Professor Peter Hotez, who spoke on 'The Changing World from a One Health Perspective', at the European College of Tropical Medicine and International Health meeting in Liverpool on 17th September 2019. Camilla Benfield, a 2018 Soulsby Fellow, also presented an update on her work at this meeting.

epidemic in Mongolia in 2017. These were couriered on dry ice from a collaborating lab in Ulaanbaatar. This was my first experience of international sample shipment. These samples were regulated under CITES (the Convention on International Trade in Endangered Species) and CITES and Defra permits all had to be obtained. I was delighted when the samples finally arrived at the RVC at the end of summer 2018.

'My aim is to analyse these samples to determine the host and viral factors underlying the disease outbreak in endangering Mongolian wildlife.

'The Soulsby Fellowship is enabling collaboration with a lab in Glasgow to learn the specialised techniques needed for this project. The fascinating thing is the starkly different picture in sub-Saharan Africa where wildlife apparently get infected by PPRV but don't express clinical disease. This is a real concern as the large African migrating populations, economically vital to Tanzania and Kenya, may succumb to PPRV disease under certain conditions in the future. Better understanding PPRV in wildlife is crucial, not only for livestock agriculture but also for biodiversity conservation and the related economy.

'Networking with Tanzanian scientists was an important motivation for my Soulsby Fellowship application. I now co-supervise a PhD student at SACIDS (Southern African Centre for Infectious Disease Surveillance). An with modern-day video-conferencing, supervising across the 6911 miles separating Potter Bar and Morogoro is now a meaningful reality. However, it was super to meet this student in person. A final aspiration for my Tanzanian visit was to see the context, ecosystem and agricultural systems in which PPRV is endemic. Travelling to Tanzania provided me the opportunity to see for myself the clinical signs and impact of PPRV on small ruminant farming, directing my future research to develop practical and meaningful solutions.'

Calling applicants for 2020

The application process for Soulsby Fellows for 2020 opens on 1 November 2019. For information on the process, including eligibility visit our website at <https://soulsbyfoundation.org>

The 2018 Soulsby Fellows

The 2018 cohort of Soulsby Fellows have all embarked on their projects. They have been very active, providing updates to the board. Their blogs can be found on our website at <https://soulsbyfoundation.org>

Camilla Benfield reports on her research area: peste de petits ruminant virus (PPRV):

'The exotic location of the Royal Veterinary College (RVC), Potters Bar has been the setting for my PPRV research so far. My research trips to Tanzania and Glasgow, generously supported by The Soulsby Foundation, were in Spring 2019.

'The focus of my recent work was analysing samples from wild ruminants that succumbed to PPRV in the large

Camilla Benfield (front row, fourth in from left) at a conference in Rome on PPRV



Andy Stringer reports on why we should be worried about antibiotics:

‘Ethiopia relies on livestock; they are crucial to the livelihoods of the majority. However, infectious diseases have an impact on the health of livestock in Ethiopia, making antimicrobials vital in combating these diseases. Antimicrobial resistance (AMR) is recognised as a significant threat to global health. Estimates have highlighted that drug resistant infections will cause 10 million extra deaths a year and cost the global economy up to US \$100 trillion by 2050. The highest mortality due to AMR will be found on the African continent.

‘The landmark report on AMR, authored by Lord O’Neil, identified a number of important interventions, including the need for a global public awareness campaign, and reducing the unnecessary use of antibiotics in agriculture. Our project, funded by the Soulsby Fellowship, is based in central Ethiopia, in the Ada district of Oromia regional state, and aims to tackle this grand global challenge.

‘The project involves focus groups with both animal health professionals and livestock owners to explore themes surrounding antimicrobial use and prescribing behaviours. Previous studies have identified a lack of knowledge by livestock owners regarding antibiotics. Issues around the availability, accessibility and affordability of antibiotics drive inappropriate use.

‘Primary veterinary healthcare in Ethiopia is delivered by numerous different animal healthcare professionals - veterinarians, animal health assistants, animal technicians, community animal health workers and private drug sellers. Across these providers there is a greatly varying degree of knowledge, attitudes and behavioural practices in regard to the appropriate use of antibiotics. To date, there is scant information on the motivations for prescribing antibiotics. This information is vital in any future programme designed to address inappropriate use.



Andy Stringer



Harriet Auty



Lorena Sordo



Lian Thomas

‘Our project aims is to gain a better understanding of behaviours and motivations for prescribing and using antimicrobials. This data will inform the design and development of culturally appropriate interventions focused on mitigating AMR.

The 2019 Soulsby Fellows

Researchers working across the wide range of One Health have been awarded fellowship funds to allow them to travel to progress their understanding in their research areas. The fellowships, in total worth over £25,000, have been awarded to support research into food safety, the zoonotic disease – trypanosomiasis, and Alzheimer’s disease.

Harriet Auty, based at the SRUC in Inverness, UK, is using the funds to investigate how research into animal and human African trypanosomiasis can inform evidence-based policy on controlling the pathogen. Auty, who will be travelling to Tanzania, highlighted the importance of controlling the disease, saying: ‘Animal African trypanosomiasis is a major constraint on agriculture and food security. Human African trypanosomiasis is fatal without treatment and under-reporting and misdiagnosis are common.’

Lorena Sordo, who is currently studying for a PhD at the University of Edinburgh, UK, will use the fellowship to travel to the USA to learn a methodology to allow her to further her studies looking at cats with an Alzheimer’s-like disease. Sordo explains why the cats are a good potential model for human Alzheimer’s disease: ‘In people with Alzheimer’s disease, the accumulation of proteins beta-amyloid and phosphorylated tau is believed to lead to cognitive decline. We have found that cats naturally accumulate these proteins and it is our belief that by quantifying this deposition and extension in the cats’ brains, we will be able to further our understanding on Alzheimer’s disease and its progression.

Lian Thomas, from the University of

Liverpool, will be travelling to Nairobi, Kenya, to investigate and quantify the risk to consumers from multiple potential hazards in pork that is supplied through different value chains of varying levels of intensification and organisation. Emphasising the multi-disciplinary nature of the study Thomas said the research would include ‘biological sample taking and laboratory diagnostics and the collection and analysis of qualitative socio-economic data.’ She adds that ‘a participatory approach will then be used to design effective and acceptable food safety interventions and understand the impacts of these on the value chain and wider society.’

Fundraising

The Soulsby Foundation is deeply grateful to all the kind donors who have made our work so far possible. Many of our donors are friends and co-workers of the late Lord Soulsby and were influenced by him and his work to support ‘One Health’ initiatives.

We are always keen to speak to existing and potential donors about the work of the Soulsby Foundation either via the website, by email, or via any of the trustees.

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