SAVSNET

Research Surveillance Benchmarking

Summer 2019

SAVSNET scoops prize at Innovator of the Year awards

We are delighted to have received a national award from the Biotechnology and Biological Sciences Research Council (BBSRC) in recognition of SAVSNET's innovative 'big data' research into animal and human diseases. The award was presented in the 'Societal Impact' category at the 2019 BBSRC Innovator of the Year awards. Now in their 11th year, the awards were held at the Science Museum in London on Wednesday 15th May and were presented by Professor Malcolm Skingle, Director of Academic Liaison, GlaxoSmithKline and Professor Melanie Welham, Executive Chair of BBSRC, pictured with Professor Alan Radford and Dr David Singleton from SAVSNET.

An independent industry led panel assessed all the applications and as category winners we received £10,000 along with our award to support ongoing work.

Alan said "We're honoured, humbled and flabbergasted to have won this award. But mostly thrilled to be able to recognise the work of all the members of our interdisciplinary team that together are making this innovation possible.

"Using a health informatics approach, we can now start to answer previously unanswerable questions of importance to practitioners, their patients and clients, as well as the wider human population. Our research is now beginning to help change the way pets are treated, from antibiotic use and resistance, to poisoning, vaccination and ticks".

Thank you to everyone for supporting SAVSNET!

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SAVSNET in Madrid

'Between January 2016 and February 2019, 14.5% of canine and 4.9% feline respiratory samples submitted to UK-based diagnostic laboratories tested positive for the presence of **Bordetella bronchiseptica.**'

Find out more in our latest surveillance report here

Our latest research award

Whilst SAVSNET outputs are informing retrospective health messages (eg poisoning, antibiotic use and resistance, vaccination, parasitism), there is a considerable time-lag between receiving data and publishing results in peer-reviewed journals. This lag, associated with data cleaning and analysis, means real-time benefits of such data cannot yet be fully exploited. For example, disease outbreaks may spread before being identified, and individual ill dogs may clinically deteriorate beyond the point that interventions have their greatest impact. SAVSNet-AGILE is an exciting project funded by the DogsTrust which will develop state-of-the-art tools to analyse in near real-time, large streams of data temporally, spatially and at the level of individual dogs.

This will provide the tools needed to detect and respond to unusual and significant patterns of canine disease at the earliest opportunity, whilst simultaneously radically improving the timely availability of actionable canine health epidemiological data to front-line clinicians and researchers. We will achieve this through an interdisciplinary network of experts in statistics (Lancaster), text mining (Manchester), canine health (Liverpool, Bristol and Animal Health Trust) and pathogen genetics (Liverpool), connected by real-time flows of data.
For further information please contact savsnet@liverpool.ac.uk

30% decrease in antibiotic prescription

Between 2014-2018, SAVSNET identified a 30% decrease in the prescription of systemic antibiotics in cats and dogs presenting with gastroenteric clinical signs. We also found an increase in the frequency with which gastrointestinal nutraceuticals were dispensed over the same period of time.

This evidence suggests that vets are recognising the updated prescribing guidance such as BSAVA's Protect Me, which recommends that antibiotic prescription should be reserved for a small subset of gastroenteric conditions.

For more information and the published paper, view our
research infographic

Our publication list is available **here**
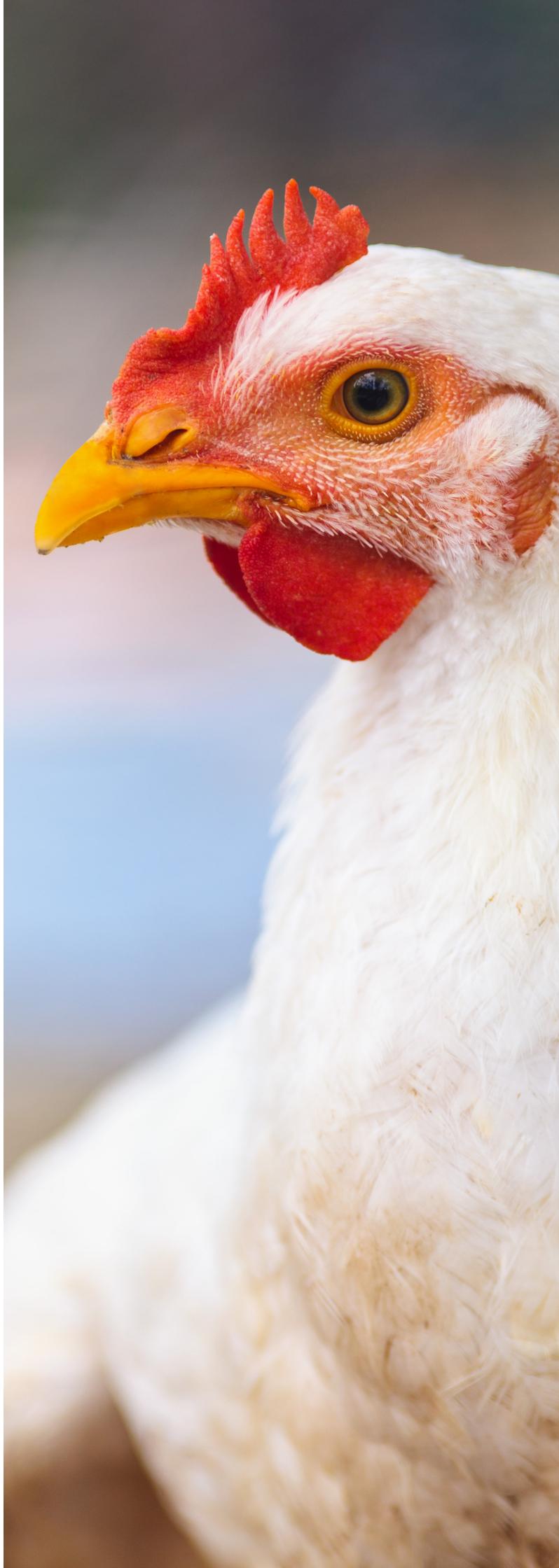
The rise of the backyard chicken

A project being led by APHA using SAVSNET data is aiming to shed some light on the diseases present in chickens kept as pets. Registering backyard poultry flocks is only a legal requirement for flocks containing over 50 birds. In many cases, backyard poultry keepers own only a very small number of birds and, consequently, there is no requirement for these flocks to be registered. Despite the small sizes of individual flocks, the cumulative number of backyard poultry is considerable. Backyard poultry are at risk from a range of endemic infectious diseases as well as notifiable diseases, such as avian influenza.

Currently, there is no way to identify what diseases are present in those birds small and backyard flocks except via the limited number of submissions to APHA. However, it is likely that backyard poultry keepers will present birds to small animal veterinary practices in a similar way to companion animal species. This project will involve analysis of veterinary consultation data and laboratory results for those chickens and other poultry taken to practices to see the vet. This work will facilitate understanding of diseases in backyard poultry and help inform decisions regarding monitoring and control. It will also help understand what antimicrobials are used to treat these birds.

In addition, practices may wish to avail themselves of the subsidised post-mortem service which APHA offers for poultry which is an important means of identifying and monitoring diseases present in the birds. Further information can be found **here**.

Professor Alan Radford was recently awarded the British Hispanic Chair at the Complutense University of Madrid (UCM), Spain, in recognition of the work of the SAVSNET team.
Alan has visited the Complutense three times during this academic year giving a variety of lectures including courses for postgraduate students on surveillance and feline virology. At the last visit Alan addressed a professional meeting to explore the potential implementation of a system similar to SAVSNET in Spain.
The "Queen Victoria Eugenia" Chair was created in the 1993 as a result of an agreement signed between UCM and the British Hispanic Foundation. It allows a University Professor from the United Kingdom to complete three stays at the Complutense University throughout one academic year, where they deliver short teaching courses to students, in addition to offering public lectures.

It is a real honour for Alan and we are grateful for the opportunity to share insight gained from SAVSNET with our new international colleagues in Madrid.

On behalf of the SAVSNET team, thank you for your ongoing support and interest in the work we do

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