



In this CVERA e-zine, we provide a brief overview of some of the recent and ongoing work conducted by CVERA staff in collaboration with a wide range of national and international institutions. More in-depth information can be found at <http://www.ucd.ie/cvera/>, noting the role of CVERA to provide high quality independent scientific research and advice to support national evidence-based policy making in animal health & welfare and public health and related matters.

A visualisation of cattle movements in Ireland during 2016

CVERA has produced an animation which presents 1.3 million movement events, consisting of 6.7 million cattle, that occurred in the Republic of Ireland during 2016. Movement data were provided by the Department of Agriculture, Food and the Marine from the Animal Identification and Movement database. The animation can be viewed on the CVERA YouTube Channel at:

<https://youtu.be/PTCdPMnenBw>

Biennial Report 2016/2017

The UCD Centre for Veterinary Epidemiology and Risk Analysis (UCD CVERA) and The TB Diagnostics and Immunology Research Laboratory have published the Biennial Report 2016/2017. The report outlines work conducted by, or in association with, these two DAFM-funded research unit in the UCD School of Veterinary Medicine. Areas of research include bovine tuberculosis; non-regulatory cattle health issues and other animal health and welfare issues. The Biennial Report 2016/2017 can be downloaded from the CVERA website at:

<http://www.ucd.ie/cvera/reports/#BiennialReports>

The sensitivity and specificity of diagnostic tests for bTB

Detailed information are available on the sensitivity and specificity of both ante- and post-mortem diagnostic tests for bTB in the UK and Ireland. This study which appears in *Preventive Veterinary Medicine* was based on a systematic literature review and associated meta-analysis. It was led by colleagues in AHVLA in Weybridge, with input from a range of partners in both countries, including CVERA. Of note, the median sensitivity for the SICTT and IFN- γ tests were estimated at 0.50 (95% credible interval: 0.26, 0.78) and 0.67 (0.49, 0.82), and the median specificity of these tests was 1.00 (0.99, 1.00) and 0.98 (0.96, 0.99). The three papers are available at:

PVM 153, 94-107 : <https://doi.org/10.1016/j.prevetmed.2017.02.017>

PVM 153, 108-116 : <https://doi.org/10.1016/j.prevetmed.2017.03.006>

PVM 153, 117-126 : <https://doi.org/10.1016/j.prevetmed.2017.11.004>

Abattoir surveillance for bTB

The European Food Safety Authority (EFSA) has published a series of opinions to assess the impact of changing from the current meat inspection procedures (CMI) to visual-only inspection (VOI) procedures. In a recent *Frontiers of Veterinary Science* paper, we consider the impact of such changes on herd-level detection sensitivity in Ireland. The results show that if VOI were introduced without alternative surveillance means to compensate for the decrease in abattoir inspection sensitivity, such changes might jeopardise bTB surveillance, control and eradication programmes in cattle herds of non-OTF countries, including Ireland. The paper is available at FVS (in press) at:

<https://www.frontiersin.org/articles/10.3389/fvets.2018.00082/abstract>

CVERA contribution to the work of EFSA

Simon More is shortly to complete his 9-year term with EFSA's Animal Health and Welfare Panel, including the last 6 years as AHAW Panel chair. He has contributed to many scientific opinions during this period, with perhaps the most notable relating to African Swine Fever, multiple stressors affecting honey bees, meat inspection, animal health law and Q fever. During 2018-21, he will continue as a member of EFSA's Scientific Committee, which considers scientific issues that span all disciplines across EFSA's areas of responsibility. More information on EFSA's Scientific Committee and Panels can be found at <http://www.efsa.europa.eu/en/science/scientific-committee-and-panels>

Trends and predictors of large tuberculosis episodes in cattle herds in Ireland

Although there has been a general trend towards less severe bovine tuberculosis (bTB) episodes in Ireland, large bTB episodes still occur (5% of episodes in 2015 involved over 15 reactors). In a recent study conducted by CVERA, in collaboration with DAFM, we looked at predictors that can distinguish between small (less severe) and large (more severe) bTB episodes. In this study we also sought to describe the national trends over time in the severity of bTB episodes in Ireland. The paper can be found from FVS (in press) at:

<https://www.frontiersin.org/articles/10.3389/fvets.2018.00086/abstract>

Decision support beyond total savings - Eligibility and potential savings for individual participants from changes in the national surveillance strategy for bovine viral diarrhoea (BVD) in Ireland

In April, we published a paper in *Preventive Veterinary Medicine* which evaluated how a suggested change from tissue-tag testing to blood sampling would affect individual herd owners in the BVD eradication programme. This work was used by the BVD Implementation Group to shape current policy. The paper is available from PVM 155, 38-44 at:

<https://doi.org/10.1016/j.prevetmed.2018.04.005>

The history of *in vivo* tuberculin testing in bovines: tuberculosis a “One Health” issue

A paper titled “The history of *in vivo* tuberculin testing in bovines: tuberculosis a “One Health” issue” was recently published in *Frontiers in Veterinary Science* by Good et al. The paper focuses on the development of tuberculin testing in bovines; outlines the origins of tuberculosis (bTB) and puts bTB in a social context. It also discusses the various impediments to the eradication of tuberculosis in bovines as well as discussing tuberculosis in a "One Health" context. The paper is available from FVS 4, 247 at <https://doi.org/10.3389/fvets.2018.00059>

Professor Eamonn Gormley has been appointed Chairman of the 7th International Conference on *Mycobacterium bovis*

Congratulations to Professor Eamonn Gormley who has been appointed Chairman of the 7th International Conference on *Mycobacterium bovis* (*M. bovis* 2020 for short). Further details on the compilation of the Scientific Committee will be confirmed later this year. The conference will take place from 8-11 June 2020. For more information please visit <http://www.mbovis2020.com/> or follow us on Twitter @mbovis2020

Congratulations to Dr. Inma Aznar on her PhD and new appointment with EFSA

Congratulations to Dr. Inma Aznar who successfully defended her PhD in Wageningen University earlier this year. Her thesis “Infection dynamics and effective control strategies of tuberculosis in badgers and cattle in Ireland” resulted in several high impact papers on various aspects of badger vaccination in Ireland. We wish Inma all the best as she begins her new job with the European Food Safety Authority (EFSA) in Parma, Italy.

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