



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.

Can bovine TB be eradicated from the Republic of Ireland? Could this be achieved by 2030?

‘Are we doing enough to eradicate bovine TB from Ireland?’ is a critical question for the national TB eradication programme. More specifically, ‘Will we be doing enough to eradicate bovine TB from Ireland once national badger vaccination has been added to all current controls?’. If so and relevant to current national targets, it is also logical to ask ‘Could this be achieved by 2030?’. In this paper, Simon More seeks to answer these questions, after considering all available evidence from Irish and international research. The paper, available in the Irish Veterinary Journal (72, 3), is further to a similar discussion with the Joint Oireachtas Committee on Agriculture, Food and the Marine, on 26 February 2019.

IVJ (72, 3) <https://doi.org/10.1186/s13620-019-0140-x>

Characteristics of *Mycobacterium bovis* infected herds tested with the interferon-gamma assay

The IFN- γ (interferon gamma) assay is used in Ireland as an ancillary diagnostic test to the single intradermal comparative tuberculin test (SICTT) to maximise the detection of *Mycobacterium bovis* infected animals (bTB) in cattle herds. Understanding the relationships between herd and animal risk factors and IFN- γ test results is critical to the development and evaluation of policy measures on how best to use the test. In this study, we set out to characterise Irish herds with IFN- γ test positive animals in terms of herd size, number of SICTT reactors and number of IFN- γ positive tests, and to evaluate the IFN- γ test in terms of test cut-off values. The results of this study are published in a paper by Clegg et al. in Preventive Veterinary Medicine (168, 52-59).

PVM (168, 52-59) <https://doi.org/10.1016/j.prevetmed.2019.04.004>

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STOC free: an innovative framework to compare probability of freedom from infection in heterogeneous control programmes

Freedom from infection is an important concept in the context of livestock trade. Once freedom has been reached, safe trade is essential to ensure that this status is protected. Currently in Europe, there are a variety of different (generally national) control programmes for important infectious diseases of cattle. Given these differences, it is not possible to directly compare confidence of freedom between programmes. The aim of STOC free, which is a collaborative project between six European countries, is to develop and validate a framework that enables the confidence of freedom from different control programmes to be compared in a transparent and standardised manner across herds, regions or countries. Using Bovine Viral Diarrhea Virus (BVDV) as an example, Van Roon et al. consider these issues in a recent paper in *Frontiers in Veterinary Science* (6, 133).

F VS (6, 133) <https://doi.org/10.3389/fvets.2019.00133>

Visit by the Chief Veterinary Officer for Wales to UCD

Dr Christianne Glossop, the Chief Veterinary Officer for Wales, and Professor Glyn Hewinson from Aberystwyth University (and Lead Scientist for Bovine TB at the Animal and Plant Health Agency (APHA) near London) visited UCD in May. A Centre of Excellence for Bovine Tuberculosis for Wales was recently established at Aberystwyth University to provide scientific expertise in support of national policy decision-making. On 1 and 2 May, Christianne and Glyn met with DAFM and UCD colleagues to learn from Irish experiences of success at the science:policy interface. In other words, what works well (and not so well) to ensure the delivery of high-quality science to inform policy decision-making in TB eradication.

Geographic Information Systems (GIS) and veterinary epidemiology

Guy McGrath gave a presentation on “GIS and veterinary epidemiology” at the Brown Bag GIS Seminar which was organised by the UCD School of Geography. Recent papers were used to illustrate how GIS technology, techniques and analysis are used extensively in veterinary epidemiological studies. Other topics discussed at the seminar included “GIS in transportation research”, “Using GIS to enhance our understanding of atmospheric ammonia impacts in Ireland” and a “Participative online GIS tool for environmental sensitivity mapping”.

UCD Geography <https://www.ucd.ie/geography/>

Perspectives from the science-policy interface

Professor Simon More gave The Gareth Davies Lecture at the 2019 conference and annual general meeting of the Society for Veterinary Epidemiology and Preventive Medicine (SVEPM) which took place in Utrecht, The Netherlands in March. Simon presented on the topic of “Perspectives from the science-policy interface”, reflecting on his experiences as a scientist seeking to inform national decision-making in animal health and welfare by policy colleagues.

SVEPM <https://www.svepm.org.uk/>

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PhD research to support bovine TB eradication in the Republic of Ireland

The Quantitative Veterinary Epidemiology group in the Wageningen Institute of Animal Sciences, in association with Department of Agriculture, Food and the Marine (DAFM) and CVERA, has recruited two PhD candidates to support the eradication of Bovine Tuberculosis (bTB) in the Republic of Ireland. You Chang, who has a BSc. in Veterinary Medicine from Huazhong Agricultural University and a MSc. in Quantitative Veterinary Epidemiology from Wageningen University and Research, will be based in the Wageningen Institute of Animal Sciences and will examine spatial modelling of bTB multi-host dynamics. Ann Barber, who has a BSc. in Zoology from University College Cork and a MSc. in Quantitative Ecology & Epidemiology from the University of Glasgow, will be based in CVERA and will analyse the spatial heterogeneity in bTB transmission with and without vaccination of badgers.

Dr Miriam Casey-Bryars joins CVERA

We are delighted that Dr Miriam Casey-Bryars has joined CVERA in her role as Veterinary Epidemiologist. Miriam has a degree in Veterinary Medicine from University College Dublin, an MSc in Veterinary Pathology from the University of Bristol, an MSc in Comparative Medicine and a PhD in Veterinary Epidemiology from the University of Glasgow. Miriam's PhD focused on the epidemiology of foot-and-mouth disease at the wildlife-livestock interface in northern Tanzania. Subsequent to her PhD, Miriam worked in the European Commission for the Control of Foot-and-Mouth Disease and since 2015 as a Veterinary Inspector in the Department of Agriculture, Food and the Marine's National Disease Control Centre.

This e-zine, and previous news items, can be found at: <http://www.ucd.ie/cvera/news/>

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