## Monday 16th June - Programme

Key to colour-coding Progress in TB Control

#### Monday 16th June

| 10:00 | REGISTRATION   |  |  |
|-------|--|--|--|
| 12:00 | LUNCH  |  |  |
| 13:00 | <b>Welcome</b><br>Christianne Glossop, CVO of Wales, and<br>Glyn Hewinson, Lead Scientist - TB, AHVLA  |  |  |
| 13:30 | OIE tools to manage Bovine tuberculosis in animals<br>Simona Forcella, OIE   |  |  |
| 14:00 | Global epidemiology and control of human tuberculosis, and the link with<br><i>Mycobacterium bovis</i><br>Christopher Dye, Office of the Director General, World Health Organization |  |  |
| 14:30 | A conceptual framework on bTB<br>Frank Verdonck, European Food Safety Authority  |  |  |
| 15:00 | REFRESHMENTS   |  |  |
| 15:30 | <b>Progress in human TB vaccine development</b><br>Helen McShane, University of Oxford, UK   |  |  |
| 16:00 | <b>TB vaccines at the human/animal interface: collaboration for innovation</b><br>Alison Hogg, AERAS   |  |  |
| 16:20 | Human TB diagnosis<br>Marc Lipman, Royal Free London NHS Foundation Trust  |  |  |
| 16:50 | REFRESHMENTS   |  |  |
| 17:20 | <b>Evolution of risk management during the successful bovine TB</b><br>Brian Radunz, Department of Primary Industry and Fisheries, Australia   |  |  |
| 17:50 | <b>Overview of TB in New Zealand</b><br>Paul Livingstone, OSPRI, New Zealand   |  |  |
| 18:20 | FINISH   |  |  |

# **Programme - Tuesday 17th June**

| Key to colour-coding Epidemiology/Surveillance Vaccination Policy Legislation and Regulation |   |   |   |  |  |
|--|---|---|---|--|--|
| 09:00  | Use of ev   | Use of evidence in policy making - Ian Boyd, Defra  |   |  |  |
| 09:45  | Managing challenges for disease control - Peter Roeder, Retired, UK   |   |   |  |  |
| 10:30  | REFRESHMENTS  |   |   |  |  |
| 11:00  | Routine whole genome sequencing of<br>bovine tuberculosis; what WGS of bTB<br>can do for you<br>Noel Smith  | BCG-efficacy assessment in a<br>goat model of tuberculosis with<br>quantitative evaluation of lung lesions<br>and bacterial load in respiratory<br>lymph nodes<br>Mariano Domingo     | <b>bTB policy legislation and</b><br><b>regulation: a European commission</b><br><b>perspective</b><br>Francisco Reviriego-Gordejo          |  |  |
| 11:20  | <b>Molecular epidemiology of bovine</b><br>tuberculosis in Cameroon<br>Franklyn Nkongho   | Use of simultaneous BCG and<br>recombinant adenovirus vaccination<br>to protect against <i>Mycobacterium</i><br><i>bovis (M. bovis)</i> infection in cattle<br>Gilly Dean             | Bovine tuberculosis eradication<br>programmes in the EU -<br>experiences from balancing<br>science and policy<br>Susanna Sternberg Lewerin  |  |  |
| 11:40  | An epidemiological study of risk<br>factors that affect the rate of<br>expansion of the area affected by<br>endemic bovine tuberculosis<br>Lucy Brunton | Paratuberculosis vaccination confers<br>partial protection against <i>M. bovis</i><br>infection in cattle<br>Ramon Juste  | Evolution of French policy<br>measures to control bovine<br>tuberculosis in regards to<br>epidemiological situation<br>Alexandre Fediaevsky |  |  |
| 12:00  | Enhanced understanding of<br>pathogenesis and epidemiology<br>through use of a "forensic" post<br>mortem examination<br>Leigh Corner                    | Vaccination of badgers against bovine<br>tuberculosis<br>Sandrine Lesellier   | Introduction of annual testing as a<br>cornerstone for TB eradication in<br>Wales<br>Christianne Glossop                                    |  |  |
| 12:30  | LUNCH   |   |   |  |  |
| 13:30  | Understanding and managing bTB risk: perspectives from Ireland<br>Simon More, University College Dublin, Ireland  |   |   |  |  |
| 14:15  | Progress in the development of vaccines for control of tuberculosis in cattle and wildlife<br>Bryce Buddle, Ag Research, New Zealand                    |   |   |  |  |
| 15:00  |   | REFRESHMENTS  |   |  |  |
| 15:30  | A longitudinal model of bovine<br>tuberculosis transmission in Great<br>Britain<br>Trevelyan McKinley   | Mycobacterium bovis infection<br>induces bovine macrophage apoptosis<br>with participation of apoptosis<br>inducing factor (AIF) nuclear<br>translocation<br>Alejandro Benitez Guzman | <b>Evidence-informed policy: whats in a number?</b><br>Darrell Abernethy  |  |  |
| 15:50  | Host richness increases tuberculosis<br>disease risk<br>Joaquín Vicente   | Natural killer cell responses following<br>BCG vaccination or Mycobacterium<br>bovis infection of neonatal calves<br>Carly Hamilton   | Infection Dynamics And Effective<br>Control Options Of Tuberculosis In<br>Cattle And Badgers<br>Inma Aznar                                  |  |  |
| 16:10  | How much bovine tuberculosis<br>surveillance is needed? A comparative<br>study between Scotland and low risk<br>areas in England<br>Liliana Salvador    | Assessment of Mycobacterium bovis<br>BCG vaccination against bovine<br>tuberculosis of calves in a natural<br>transmission setting in Ethiopia<br>Gobena Ameni                        | bTB policy, legislation and<br>regulation: a perspective from<br>Mexico<br>Jose Alfredo Gutierrez Reyes                                     |  |  |
| 16:30  | Tuberculosis In domestic pigs in Great<br>Britain 2007-2011<br>Suzanne Bailey   | Field efficacy of single-dose oral<br>BCG vaccination in protecting cattle<br>from natural infection with bovine<br>tuberculosis<br>Graham Nugent                                     | Test And Vaccinate Or Remove<br>(TVR) Badger Intervention<br>Research – An Effective Middle<br>Way?<br>Ian McKee                            |  |  |
| 17:00  | Poster session with drinks reception  |   |   |  |  |
| 18:30  | FINISH  |   |   |  |  |

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## Wednesday 18th June - Programme

|       | Diagnosis   | Key to colour-coding Practical Delivery  | Social Science/Economics  |  |  |  |
|-------|---|--|---|--|--|--|
| 09:00 | Genomic insights into the biology of <i>Mycobacterium bovis</i><br>Steve Gordon, University College Dublin, Ireland   |  |   |  |  |  |
| 09:45 | Host responses to mycobacterial infections: spotlight on biomarker discovery to predict vaccine<br>efficacy - Martin Vordermeier, AHVLA, UK                               |  |   |  |  |  |
| 10:30 |   | REFRESHMENTS   |   |  |  |  |
| 11:00 | Development and evaluation of a DIVA<br>skin test for bovine tuberculosis<br>Gareth Jones   | A cautionary tale: a case study<br>of a large, movement-related<br>TB breakdown in a dairy herd in<br>northern New Zealand in late-2012<br>and the lessons learned from this<br>breakdown<br>Jane Sinclair | <b>Review of economics used for bTB</b><br>Richard Bennett  |  |  |  |
| 11:20 | Adjustments and controls in the<br>use of Bovigam B1G to improve the<br>reproducibility<br>Jean-Louis Moyen   | A potential model for assessing and<br>managing herd risks as part of a TB<br>control programme<br>Dick Sibley   | Bovine tubercolosis: the costs of<br>the eradication plan in the Latium<br>Region (Italy)<br>Paola Scaramozzino                                   |  |  |  |
| 11:40 | Immune response to experimental<br><i>M. bovis</i> infection in cattle naturally<br>infected with <i>M. paratuberculosis</i><br>Virginie Roupie                           | The concept of a farm advisory<br>service evaluating multiple infectious<br>diseases in order to address bovine<br>TB control on farm<br>Neil Paton  | Veterinary geography: bovine TB<br>eradication in Northern Ireland<br>Philip Robinson   |  |  |  |
| 12:00 | Critical points in laboratory protocols<br>for bovine tuberculosis diagnosis<br>Lucía de Juan   | Cymorth TB: government and private<br>vets working together to improve<br>education and support to farmers in<br>the drive to eradicate bTB<br>Linda Evans   | Bovine tuberculosis: an economic<br>threat or a big fuss about nothing?<br>Paul Torgerson   |  |  |  |
| 12:30 |   | LUNCH  |   |  |  |  |
| 13:30 | Practicalities of the immune-based diagnostic assays for the control of bovine tuberculosis<br>Douwe Bakker, DLO Institute for Animal Science and Health, The Netherlands |  |   |  |  |  |
| 14:15 | Bovine tuberculosis and social science: what is it and how can it help?<br>Gareth Enticott, University of Cardiff, UK   |  |   |  |  |  |
| 15:00 | REFRESHMENTS  |  |   |  |  |  |
| 15:30 | Sensitive and specific diagnostic assay<br>for detection of tuberculosis in cattle<br>Said Fathalla   | Advances in monitoring of tuberculin<br>testing in the Irish bTB eradication<br>programme, 2008 - 2013<br>Anthony Duignan  | Social research methods<br>reveal effective and practical<br>management interventions for<br>bovine tuberculosis management<br>Christian Gortazar |  |  |  |
| 15:50 | Diagnosis of bovine tuberculosis<br>in Mozambique - comparison of<br>diagnostic methods<br>Irmgard Moser  | Strategic applications of the IFNy<br>assay in a bovine tuberculosis<br>eradication programme<br>Eamonn Gormley  | Farmers' beliefs and bovine<br>tuberculosis in cattle<br>John Kaneene   |  |  |  |
| 16:10 | Polymerase chain reaction (PCR)<br>specificity evaluation in the<br>identification of <i>Mycobacterium bovis</i><br>José Gutiérrez-Pabello                                | The paradigm shift: adjusting the<br>livestock TB testing surveillance<br>programme through the lifespan of<br>a national eradication strategy; the<br>New Zealand experience<br>Kevin Crews               | Farmers' confidence in badger<br>vaccination: a longitudinal analysis<br>Damian Maye  |  |  |  |
| 16:30 | <b>Evaluation of methods for the isolation</b><br><b>of <i>Mycobacterium bovis</i></b><br>Geoffrey de Lisle   | Application of electronic animal<br>identification systems for tracing in<br>bovine TB breakdowns<br>Stuart Hutchings  | <b>TB testing in private practice: a</b><br><b>case study approach</b><br>Katherin Adam   |  |  |  |
| 17:00 | Poster session open   |  |   |  |  |  |
| 18:30 |   | FINISH   |   |  |  |  |

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## **Programme - Thursday 19th June**

 Key to colour-coding

 New Methods and Innovation
 Wildlife Reservoirs
 TB Control and other

| 09:00 | Wildlife tuberculosis: update and ongoing research<br>Christian Gortazar, SaBio research group at IREC (UCLM-CSIC), Spain                            |   |  |  |
|-------|--|---|--|--|
| 09:45 | Wildlife/cattle interface using WGS - Rowland Kao, University of Glasgow, UK   |   |  |  |
| 10:30 | REFRESHMENTS   |   |  |  |
| 11:00 | Analysis of breath volatile organic<br>compounds as a screening tool for<br>detection of tuberculosis in cattle<br>Pauline Nol                       | Liberalised distribution of landowner<br>shooting permits for management of<br>bovine tuberculosis in Michigan, USA,<br>white-tailed deer, 2008-2010<br>Dan O'Brien | Integration of science, policy and<br>IT advances in the Irish bovine TB<br>eradication: updates and progress<br>2005-2013<br>Margaret Good                            |  |
| 11:20 | Badgers and their interaction with<br>cattle and farmyards – data from<br>remote satellite tracking in the<br>Republic of Ireland<br>Teresa MacWhite | Ghost hosts: complexities in<br>quantifying TB freedom in a multi-<br>host wildlife system<br>Graham Nugent   | Risk management during the<br>monitoring phase of the successful<br>bovine tuberculosis eradication<br>campaign in Australia<br>Brian Radunz                           |  |
| 11:40 | Developing a field diagnostic<br>sample collection method for<br>unanaesthetised badgers<br>Fiona Rogers   | Application of a bovine TB eradication<br>strategy involving wildlife hosts<br>Stuart Hutchings   | The risk of bovine tuberculosis<br>transmission associated with the<br>translocation Of wildlife<br>Lin-Mari de Klerk-Lorist   |  |
| 12:00 | <b>Design and analysis of trials for a new</b><br><b>tuberculin standard</b><br>Klaas Frankena   | Successful management of a wildlife<br>reservoir of <i>Mycobacterium bovis</i> In<br>Canada: epidemiology and key factors<br>for control<br>Todd Shury              | Eradication of bovine tuberculosis<br>in Slovenia<br>Tina Pirš   |  |
| 12:30 | LUNCH  |   |  |  |
| 13:30 | Whole genome sequencing for<br>sourcing Mycobacterium bovis<br>breakdowns in New Zealand<br>Marian Price-Carter                                      | Using molecular techniques to<br>investigate TB dynamics in an<br>intensively studied wildlife host<br>population<br>Clare Benton                                   | твс  |  |
| 13:50 | A new perspective on exploring<br>the cell surface epitopes of<br><i>Mycobacterium bovis</i><br>Linda Stewart  | Environmental presence of <i>M. bovis</i><br>at aggregation points in the wildlife/<br>livestock interface in Mediterranean<br>areas<br>Joaquin Vicente             | Deciphering the trends in animal<br>and human infections with<br>Mycobacterium bovis and M.<br>tuberculosis in Nigeria: an overview<br>from 1979-2013<br>Simeon Cadmus |  |
| 14:10 | A heterozygote advantage analysis for<br>tuberculosis resistance in dairy cattle<br>Smaragda Tsairidou   | Baiting and feeding revisited:<br>exploring factors influencing<br>transmission of bovine tuberculosis<br>among deer and to cattle<br>Melinda Cosgrove              | Development of a bovine<br>tuberculosis risk tool (bTBR) to<br>inform cattle risk based trading<br>Amie Adkin  |  |
| 14:30 | First line molecular diagnosis of<br>bovine tuberculosis: the French<br>experience<br>Maria Laura Boschiroli   | Field vaccination in Eurasian wild<br>boar: first results in piglets<br>Iratxe Diez Delgado   | Operation Johne's: a potential<br>example for a <i>M. bovis</i> engagement<br>programme<br>Peter Orpin   |  |
| 15:00 | Closing address  |   |  |  |
| 15:30 | Michael Sheridan, Deputy Chief Veterinary Officer, DAFM, ROI<br>Close  |   |  |  |
| 13.30 | Alun Davies, Assembly Member, Minister for Natural Resources and Food  |   |  |  |
| 15:45 | FINISH   |   |  |  |

Programme