



**Diagnostics in the veterinary field:
The role in health surveillance and disease identification**

May 15 - 17, 2019 Dorinth Pallas Hotel, Wiesbaden, Germany

Diagnostics are an essential tool to ensure the health of domestic and wild animals for both endemic and emerging diseases. They allow animal health professionals to understand and manage the general health status of domestic animals. They are also important tools to support public health initiatives in the case of zoonotic disease control. The meeting will provide an overview of existing systems and approaches / strategies for the use of diagnostics and to discuss the currently available diagnostics. The advantages / benefits and disadvantages / gaps of the current methods and methodologies will be identified and discussed. Proposals on how to increase the quality, efficacy, and utility of the existing strategies and methods and those under development will be made

Scientific Committee

Dr. Carmen Jungbäck, Chair	IABS	Dr. Serge Leterme	IDEXX
Dr. Sandra Blome	Friedrich Loeffler Institut	Dr. David Mackay	EMA
Dr. Attila Farsang	CEVA	Dr. Egbert Mundt	Boehringer-Ingelheim
Dr. Cyril Gay	USDA	Prof. Dr. Amir H. Noormohammadi	University of Melbourne
Dr. Richard Hill	IABS	Dr. Suelee Robbe Austerman	APHIS-USDA
Dr. Vaughn Kubiak	Zoetis	Dr. Sjaak de Wit	GD Animal Health

Day 1 – Wednesday, May 15, 2019

- 13:00 **Registration**
- 14:00 Opening
- 14:10 Introductory remarks: Expectations of all stakeholders (authorities, farmers, veterinarians etc) on Diagnostics and their use in outbreak investigations of Transboundary Animal Diseases
Prof. Dr. Hans-Joachim Bätza, Federal Ministry of Food & Agriculture, Germany

Session 1 – Diagnostics: Current and new methods

Chairpersons: *Dr. Vaughn Kubiak, Zoetis Belgium SA, Belgium*
Dr. Sjaak de Wit, GD Animal Health, The Netherlands

- 14:40 Classical serological test in the modern age: are we moving in the right direction?
Dr. Gleeson Murphy, National Veterinary Services Laboratories, U.S.A.
- 15:00 Multiparameter-testing for pathogens and antibodies in a Point of Care approach
Dr. Heinz Schoeder, Boehringer Ingelheim VRC GmbH & Co KG, Germany
- 15:20 Carry your lab in-your-pocket – qPCR results whenever needed
Dr. Carsten Schroeder, Indical Bioscience, Germany
- 15:40 Coffee break
- 16:10 Biotechnology-based diagnosis of infectious diseases in veterinary medicine
Dr. Fredric Granberg, Swedish University of Agricultural Sciences, Sweden
- 16:30 Rapid genome sequencing of animal pathogens from clinical or environmental samples
Dr. Marc Marends, Faculty of Veterinary and Agricultural Sciences, The University of Melbourne, Australia
- 16:50 Long Read DNA sequencing technology for diagnostic of poultry pathogens
Dr. Claudio Afonso, National Poultry Research Center, Southeast Poultry Research Laboratory, U.S.A.
- 17:10 A bead-based multiplex immunoassay for simultaneous measurement of antibody responses to multiple antigens; an example from Atlantic salmon
Dr. Hege Lund, Norwegian University of Life Sciences (NMBU), Faculty of Veterinary Medicine, Norway
- 17:30 Modern antimicrobial sensitivity testing: current state of affairs and future development
Dr. Alex van Belkum, bioMérieux, France
- 17:50 Discussion

Day 2 – Thursday, May 16, 2019

Session 2 – Diagnostics in epidemiological in clinical surveillance: practical applications

Chairpersons: *Dr. Sandra Blome, Friedrich Loeffler Institut*
Dr. Serge Leterme, IDEXX
Prof. Dr. Amir H. Noormohammadi, University of Melbourne

- 09:00 Diagnostic strategies for endemic diseases: surveillance and control
Dr. Margaret Good, previously Veterinary Head of the Ruminant Animal Identification and Traceability, Disease Eradication, Division, of the Irish Department of Agriculture, Food and the Marine, Ireland
- 09:20 Survival of viral pathogens in animal feed ingredients under transboundary shipping models
Dr. Scott Dee, Pipestone Veterinary Services, U.S.A.
- 09:40 A novel modified-indirect ELISA based on spherical body protein 4 for detecting antibody during acute and long-term infections with diverse Babesia bovis strains
Dr. Carlos Suarez, Animal Disease Research Unit, Agricultural Research Service, USDA, U.S.A.
- 10:00 Surveillance of TSE in Italy: a success story
Dr. Elena Maria Bozzetta, Istituto zooprofilattico sperimentale del piemonte liguria e Valle d'Aosta, Italy
- 10:20 Genome sequencing and evolutionary analyses of Newcastle disease viruses from formalin fixed paraffin-embedded chicken tissues collected during disease outbreaks
Dr. James B. Stanton, Department of Pathology, University of Georgia, U.S.A.
- 10:40 Serology vs. real-time quantitative PCR (qPCR) screening for viral infections; experiences from the control of salmon pancreas disease in Ireland and Norway
Dr. Marian McLoughlin, Fish Vet Group, United Kingdom
- 11:00 Coffee
- 11:30 Point-of-care rapid diagnostic tests and their clinical use: diagnosis and prevention of calves diarrhea
Dr. Estelle Hess, Bio-X Diagnostics, Belgium
- 11:50 Emerging diseases: Lumpy Skin Disease: history, lessons and perspectives on diagnostics and control
Dr. David Wallace, Onderstepoort Veterinary Institute, Agricultural Research Council, South Africa
- 12:10 Emerging diseases: African Swine Fever
Dr. Carmina Gallardo, Centro de investigación en sanidad animal (CISA-INIA), Spain
- 12:30 Lunch
- 14:00 ICT (Information and Communication Technology) and Big Data applied to veterinary diagnostics: the today various approaches of the subject
Dr. Belen Barreiro, Ingenasa, Spain

- 14:20 DIVA in DNA: Pseudorabies and IBR
Dr. Patricia König, Friedrich Loeffler Institut, Germany
- 14:40 DIVA in RNA: Avian influenza, strategies in control, surveillance and eradication – problems with DIVA
Prof. Timm Harder, Friedrich Loeffler Institut, Germany
- 15:00 Advances in diagnostic and control strategies for Rift Valley Fever
Dr. William Wilson, Arthropod-Borne Animal Diseases Research Unit, Agricultural Research Service, USDA, U.S.A.
- 15:20 Discussion
- 15:50 Coffee

Session 3 – Acceptance of data, qualification tools for laboratories and methods

Chairpersons: *Dr. Egbert Mundt; Boehringer-Ingelheim*
Dr. Suelee Robbe-Austerman,
National Veterinary Services Laboratory, Animal and Plant Inspection Service, USDA., U.S.A.

- 16:20 Role of OIE and FAO networks to maintain laboratory quality assurance systems for transboundary livestock diseases
Dr. Donald King, The Pirbright Institute, United Kingdom
- 16:40 Network: AAVLD the role of veterinary diagnostics in health surveillance and disease, including new technologies, standardization and quality assurance
Dr. Keith Bailey, American Association of Veterinary Laboratory Diagnosticians (AAVLD), U.S.A.
- 17:00 OMCL: quality assurance of labs and methods - the need for physical standards to assure the quality and comparability of diagnostic testing
Dr. Neil Almond, National Institute for Biological Standards and Control (NIBSC), United Kingdom
- 17:20 General guidance for test kits intended for diagnosis of animal diseases
Dr. Larry Ludemann, USDA, Center for Veterinary Biologics, U.S.A.
- 17:40 Licensing EU
Dr. Sandra Blome, Friedrich Loeffler Institut, Germany

Day 3 – Friday, May 17, 2019

- 08:30 Technical and regulatory challenges of developing veterinary diagnostic tests
Dr. Serge Leterme, IDEXX, U.S.A.
- 08:50 Experience from a manufacturer: Qualification / validation of methods challenges of developing quality control tests
Marianna Ivok, CEVA, Hungary

- 09:10 Experience from inter-laboratory proficiency tests among European national reference laboratories for detection of viral infections in fish
Dr. Niels Jorgen Olesen, Technical University of Denmark, National Institute of Aquatic Resources, Denmark
- 09:30 ISO 17043 for organisers of proficiency testing schemes: experiences with ring tests/collaborative studies
Dr. Sjaak de Wit, GD Animal Health, The Netherlands
- 09:50 Discussion
- 10:20 Coffee

Session 4 – Summary of the sessions, discussion, conclusions and recommendations

Chairpersons: *Dr. Attila Farsang*, CEVA, Hungary
Dr. Richard Hill; IABS-North America (IABS-NA)

- 10:50 Summary of the sessions and the discussions
- 11:30 Conclusions and recommendations
- 12:00 Plenary /Panel discussion
- 12:30 Closing remarks
Farewell lunch