ISVEE 15

12 – 16 November 2018
Chiang Mai, Thailand

The 15th International Symposium of Veterinary Epidemiology and Economics

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Opening Remark

H.E. MR. LUCK WAJANANAWAT
Deputy Minister of Agriculture and Cooperatives, Thailand
At the 15th International Symposium on Veterinary Epidemiology and Economics (ISVEE 15),
12 November, Chiangmai, Thailand.

Excellency,
Director General,
President of Thai Veterinary Medical Association,
Distinguished Delegates,
ISVEE participants,
Ladies and Gentlemen,

First, let me thank the Thai Veterinary Medical Association under Royal Patronage, the Department of Livestock Development, and the International Society for Veterinary Epidemiology and Economics for hosting this global forum in Chiagmai, Thailand. In the coming days, you will be building on the momentum for veterinary epidemiology and economics research and giving this momentum new direction and innovation for animal production, animal health, public health, ecosystem-and-livestock integration related issues.

Let me acknowledge, the tremendous amount of work undertaken to prepare for this forum, including work done in collaboration with other international organizations such as Food and Agriculture Organization of the United Nations (FAO), Animal Production and Health Commission for Asia and the Pacific (APHCA), World Organisation for Animal Health (OIE), and International Livestock Research Institute (ILRI).

Decision makers are now dealing with animal production, animal health, public health, impacts of climate change on livestock and ecosystem problems, rural development, poverty eradication, and food security, at the national, regional, and global level which are increasingly faced with new challenges. In the face of growing world human and animal populations and rapid environmental change, the linkages between human, animal, and environmental health are becoming more evident. Furthermore, human health, animal production and health professionals must overcome specific barriers to inter-professional collaboration to implement needed multidisciplinary strategies.

As transboundary animal diseases and emerging zoonotic infectious diseases are our important concern and priority. We need to join hands among animal health sector, public health sector, academia, and other stakeholders to reinforce the urgent need for globally operationalizing a One Health approach. Currently, in Asia, transboundary animal diseases and emerging zoonotic diseases such as Avian influenza, Rabies, Foot-and-Mouth disease and new introduction of African Swine Fever are our threat causing animal health, public health, and socio-economic consequences at the national, regional and global level. The Royal Thai Government has worked closely with all relevant sectors including Ministry of Agriculture and Cooperatives, Ministry of Public Health, producer association, private sector, and international organizations to implement and reinforce the stringent measures to prevent and control those contagious diseases. We must introduce and reinforce early detection and rapid reporting systems, increase surveillance efforts, strengthen the capacity of veterinary epidemiology and laboratory diagnosis, and ensure transparency and safe trade with other countries. Additionally, we also need technical support and innovation from you as scientist and researcher who are gathering here today in Chiangmai.

Ladies and gentlemen,

We have many urgent reasons for taking the veterinary epidemiology and economics research agenda forward with great haste, as this issue is related to animal production, animal and public health, and food security policies at the national, regional and global level.

Finally, I wish you an inspiring conference, I wish you a most productive meeting and I wish you have a pleasant stay in Thailand. Now, I would like to declare the 15th International Symposium on Veterinary Epidemiology and Economics open.

Thank you.

WELCOME

WELCOME MESSAGE FROM THE THAI VETERINARY MEDICAL ASSOCIATION UNDER ROYAL PATRONAGE

Dear colleagues and participants,

Welcome all of you at ISVEE; the 15th International Symposium on Veterinary Epidemiology and Economics. Welcome you to Chiangmai, Thailand.

Decision makers dealing with animal health, human health and the ecosystem problems, at the herd, national, regional or global level are increasingly faced with new challenges. In the face of growing world human and animal populations and rapid environmental change, the linkages between human, animal, and environmental health are becoming more evident. Furthermore, human and animal health professionals must overcome specific barriers to interprofessional collaboration to implement needed multidisciplinary strategies.

The five-day conference programme focuses on a broad range of issues and challenges in the field of Veterinary Epidemiology and Economics which will be weaved through the keynote speakers, plenary speakers, distinguished session speakers, epidemiologists, scientists, practitioners and researchers.

As the host country of ISVEE 15, I believe that the success of the conference depends heavily on the people who have worked hard in planning and organizing the conference program. It has been our greatest hope that this conference will serve as an international platform for the exchange of knowledge and expertise in Veterinary Epidemiology and Economics researches and practices, at the same time to explore the potential collaborations in future research. We hope that the conference will be a stimulating, engaging and fulfilling experience to all the participants.

We thank the organizing committee and the scientific committee for their invaluable assistance in designing a very interesting program. Moreover, we wish to thank our sponsors for making this conference possible. Most of all we thank you, participants of ISVEE, for your contributions and your presence at ISVEE 2018. We wish you an inspiring conference.

Somchuan Ratanamungklanon
President
The Thai Veterinary Medical Association under Royal Patronage (TVMA)

WELCOME MESSAGE FROM THE DEPARTMENT OF LIVESTOCK DEVELOPMENT

Dear ISVEE participants and colleagues,

It is a great honour and pleasure for me to welcome you to Chiangmai, Thailand at the 15th International Symposium on Veterinary Epidemiology and Economics (ISVEE 15).

This international conference will focus special attention on the epidemiologic studies, animal health economics, animal and public health policy, One Health, disease surveillance, capacity building, and etc.

These issues of animal health, human health, and ecosystem have a significant societal dimension. Efforts towards ensuring that the population is in good health must be a result of dynamic and mutually complementary collaboration among all the parties involved.

In the field of Veterinary Epidemiology and Economics, it is absolutely essential that we focus on the quality of animal health, human health, and food safety related issues. The Department of Livestock Development, Ministry of Agriculture and Cooperatives of Thailand is greatly supportive of this conference and is working hard to ensure food security and food safety standards across all branches of veterinary medicine.

I believe that this conference will be of benefit to one and all, and that you will exchange with one another the useful experience that you have gained in your work with policy-makers, practitioners, epidemiologists, scientists and researchers.

I thank the organizing committee, the scientific committee, the keynote speakers, the plenary speakers, the distinguished session speakers, and all participants for their invaluable contribution and support to ISVEE 15 in Chiangmai, Thailand. Finally, I wish you all fruitful deliberations, I wish the meeting all success, and I wish you all an enjoyable stay in Thailand.

Sorravis Thaneto
Director General
Department of Livestock Development, Thailand

WELCOME MESSAGE FROM THE LOCAL ORGANIZING COMMITTEE OF ISVEE 15

Dear Colleagues,

On behalf of the Local Organizing Committee of the 15th International Symposium on Veterinary Epidemiology and Economics (ISVEE), we are truly honored and delighted to take this opportunity to welcome delegates from all around the world to this conference. It gives us great pleasure and privilege to host this event in Chiangmai, Thailand.

The ISVEE 15 scientific program will foster discussions and hopes to inspire participants from a wide array of themes to initiate collaborations within and across disciplines for the advancement of our field on veterinary epidemiology and economics.

We thank the organizing committee, scientific committee, reviewers, participants, session chairs, keynote speakers, plenary speakers, session guest speakers and all staff for the great contributions and helping us to build this very exciting conference program. You will hear state of the art presentations and view posters with top of the bill science originating from over 70 different countries. Different special sessions and breaks will give you good opportunities to discuss with your colleagues for expanding your collaboration and strengthening your network.

We encourage you to look, listen and discuss and to build new scientific and personal networks and bridges so that veterinary epidemiology and economics can further flourish in a multi-disciplinary scientific world.

The Local Organizing and Scientific Committees will make any possible effort to make sure that your participation will be scientifically rewarding and a pleasurable experience.

On behalf of the organizing committee

Sudson Sirivaidyapong
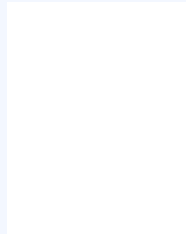*President*
ISVEE 15 Organizing Committee

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Thanawat Tiensin
ISVEE15 Vice President, Thailand
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Department of Livestock Development, Thailand

Vice President and Chair of Scientific Committee
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Kasetsart University, Thailand

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Pipat Arunvipas,	*Kasetsart University, Thailand*
Arjan Stegemen,	*Utrecht University, The Netherlands*
Jorge Hernandez,	*University of Florida, United State of America*
Dirk Pfeiffer,	*City University of Hong Kong, Hong Kong SAR*
Tim Carpenter,	*Massey University, New Zealand*
Michael Ward,	*The University of Sydney, Australia*
Jeroen Dewulf,	*Ghent University, Belgium*
Peter Thompson,	*University of Pretoria, South Africa*
Katharina Staerk,	*SAFOSO AG, Switzerland / Royal Veterinary College, UK*
Karin Orsel,	*University of Calgary, Canada*
Kazuhiko Ohashi,	*Hokkaido University, Japan*
Chaithep Poolkhet,	*Kasetsart University, Thailand*
Suppada Kananub,	*Kasetsart University, Thailand*
Suwicha Kasemsuwan,	*Kasetsart University, Thailand*
Chaidate Inchaisri,	*Chulalongkorn University, Thailand*
Karoon Chanachai,	*Department of Livestock Development, Thailand*
Sith Premasthien,	*Department of Livestock Development, Thailand*

PROF. DR. DIRK PFEIFFER
Chair Professor of One Health at City University's College of Veterinary Medicine and Life Sciences, Hong Kong, SAR

Dirk graduated from Justus Liebig University, Giessen, Germany in 1984 with a Degree in Veterinary Medicine. He went on to complete a Doctorate of Veterinary Medicine at the same university in 1986. Following this Dirk went on to do a Postgraduate Diploma in Tropical Veterinary Medicine at the Free University of Berlin, which involved fieldwork in Kenya, Somalia, Malaysia and Thailand.

In 1987, Dirk moved to Massey University, New Zealand to complete a PhD in veterinary epidemiology and remained there for 11 years, where he became a Lecturer in Production Medicine and Epidemiology in 1992 and was appointed as Senior Lecturer in Veterinary Epidemiology in 1996.
Dirk joined the Royal Veterinary College in 1999 as a Professor in Veterinary Epidemiology. Dirk is also an Honorary Professor at the London School of Hygiene & Tropical Medicine, and an Adjunct Professor at the China Animal Health & Epidemiology Centre, Qingdao, China. Since June 2015, Dirk has been fulfilling the part-time role of Chief Epidemiologist of the UK Government's Animal & Plant Health Agency from 2015 to 2017. Dirk joined City University of Hong Kong's newly established School of Veterinary Medicine on November 1, 2016 as Chair Professor for One Health, but will maintain a 20% appointment at the Royal Veterinary College.

Membership of Advisory Committees and Expert Panels: Chair of Animal Health Surveillance Governance Board for England and Wales, UK (from 2015 to 2016); European Commission's DG SANTE Surveillance Task Force (from 2009-2016); Member of editorial board of the international scientific journal BMC Veterinary Research (since 2005); Associate editor of the international scientific journal Spatial and Spatiotemporal Epidemiology (since 2009); International Advisory Committee for Review of Food Safety and Biosecurity Programs of Singapore's Agri-food and Veterinary Authority (since 2002); Chair of AHVLA review surveillance panel (2012); Chair of Epidemiology and Wildlife Risks sub-group of Defra's bovine tuberculosis Science Advisory Body (from 2008 - 2013); Member of epidemiology sub-group of OIE/FAO Network on Avian Influenza (OFFLU), Paris, France (from 2008); Member of Research Sub-committee of Royal College of Veterinary Surgeons, London, UK (from 2011-2015); Member of International Scientific Peer Review Panel for National Institute of Animal Health for National Agriculture and Food Research Organization (NARO), Japan (2011)

DR. WANTANEE KALPRAVIDH
Regional Manager, Emergency Center for Transboundary Animal Disease for Asia and the Pacific for the Food and Agriculture Organization (FAO), Bangkok, Thailand

Dr. Wantanee Kalpravidh obtained her Doctor of Veterinary Medicine (1st Rank Honorary) from Chulalongkorn University. She continued her postgraduate study with the Royal Thai Government Scholarship and obtained her PhD in Veterinary Medicine (Major in Veterinary Epidemiology and Minor in Public Health) from University of Minnesota, USA in 1993.

She served the Department of Livestock Development (DLD) during 1993-2003 where most of her work focusing in the field of epidemiology and disease control policy planning. She joined the Faculty of Veterinary Science for one year before joining the Food and Agriculture Organization (FAO) of the United Nations in 2004 as the Regional Epidemiology and Laboratory Network Coordinator for Southeast Asia. Her current position is the Regional Manager of the Emergency Center for Transboundary Animal Diseases (ECTAD) based at the FAO Regional Office for Asia and the Pacific, Bangkok, Thailand.

DR. EDMUND PEELER
Group Manager, Aquatic Pests and Pathogens,
Center for Environment Fisheries and Aquaculture Science (CEFAS), United Kingdom
Vice President of OIE Aquatic Health Code

Edmund graduated from Cambridge University in 1989 with a degree in veterinary medicine. After two years in farm animal practice he gained a master in Veterinary Epidemiology from the University of Reading and worked for the UK Department for International Development on a livestock development project in Kenya, followed by a PhD at Bristol Veterinary School investigating the epidemiology of bovine mastitis. He has been employed at the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) -a UK government science agency – since 2001, where he has led development of aquatic animal epidemiology and risk in CEFAS.

Edmund has been involved in numerous UK government and EU funded research projects and has published over 50 peer-reviewed papers mainly on research into the application of epidemiology and risk analysis in aquatic animal health policy, including import risk analysis and drivers for disease emergence. Edmund provides advice to the UK government on aquatic animal health policy, notably contingency planning, surveillance and legislation. Edmund has been a member of EU, European Food Standards Authority and World Organisation for Animal Health (OIE) committees and panels. He is currently leading a Program to develop aquatic animal health capacity in the Omani Ministry of Agriculture. He is a former president of the Society for Veterinary Epidemiology and Economics (SVEPM) and is currently serving a second term as vice-president of the OIE Aquatic Animal Health Standards Commission.

DR. MATTHEW STONE
Deputy Director General, World Organisation for Animal Health (OIE), France

Dr. Matthew Stone is a veterinary epidemiologist from New Zealand, and the Deputy Director General – International Standards and Science at the World Organisation for Animal Health (OIE) at their Paris headquarters. After five years in mixed veterinary practice, Matthew worked for the next 20 years with the government veterinary authority of New Zealand, the Ministry for Primary Industries, serving in numerous veterinary and management roles, including as the New Zealand Delegate to the OIE.

In that capacity he served as the Secretary General for the OIE Asia Far East and Oceania region. Matthew has been President of the Epidemiology Branch of the New Zealand Veterinary Association; and a member of the Professional Standards Committee of the New Zealand Veterinary Council; the Stakeholder Council for the New Zealand Tb Free and National Animal Identification and Traceability Programs; and the Wellington SPCA Board.

In OIE, Matthew oversees the organisation's processes for setting international standards; the global strategies for FMD, PPR, Rabies and AMR; and represents OIE on the UN Inter-Agency Coordination Group for AMR.

PROF. DR. KATHARINA D C STÄERK
SAFOSO AG, Switzerland
Royal Veterinary College, Department of Pathobiology and Population Sciences

Katharina graduated as a veterinarian from Zurich Veterinary School and obtained her PhD from Massey University (New Zealand). Over the last two decades, she has conducted applied research on infectious diseases and zoonoses as well as risk analysis, surveillance and animal health decision making in relation to animal-derived food. She has worked in diverse environments including Swiss government, private industry in Denmark and academia in Switzerland and the UK. Katharina has repeatedly served on international working groups and expert panels for EFSA and the OIE. Katharina is currently Director for Science and Quality SAFOSO AG, Bern, honorary Professor of Veterinary Public Health Policy at the Royal Veterinary College, London, and at the VETSUISSE Faculty, Zurich, as well as Adjunct Professor at City University, Hong Kong. Her professional passion lies in translating science into practice with the aim to assure safe food for all.

PROF. DR. JORGE A HERNANDEZ
University of Florida, USA

Jorge Hernandez is a professor of epidemiology at the University of Florida (UF). He has 30 years of experience in education, research, capacity building, and consulting in animal health and public health in the United States, Latin America and the Caribbean, China, Nepal, Niger, Nigeria, Rwanda, Saudi Arabia, and Senegal. Nationally, his research benefits dairy, equine, small animal, and marine conservation practitioners—as well as sports medicine practitioners. Internationally, his expertise in epidemiology and disease surveillance systems supports government agencies involved in animal health, public health, food systems, threat reduction from biological weapons of mass destruction, and diversity, wildlife and ecosystems health efforts (e.g., USDA, USAID, US Defense Threat Reduction Agency, FAO, and the Galapagos Biosecurity Agency). Currently, he is serving as Interim Director of Graduate Education at the UF College of Veterinary Medicine. www.ufvetmedepidemiology.com.

DR. LIS ALBAN
Danish Agriculture & Food Council, Denmark

Lis Alban holds a DVM and a Ph.D. in veterinary epidemiology from University of Copenhagen, Denmark. She is affiliated as a Chief Scientist with the Danish Agriculture & Food Council (DAFC). She undertakes epidemiological investigations and is responsible for the conduct of risk assessments primarily within food safety including antimicrobial resistance. Her main interest is surveillance and control of pig-borne hazards.

She is also an Adjunct Professor at the University of Copenhagen. Her involvement in both academia and industry allows her to focus on identifying intelligent solutions to the challenges in current meat production. She prefers working using the Danish Model, which involves collaboration between stakeholders, academia and veterinary authorities. She is a diplomate of the European College of Veterinary Public Health and is on the Editorial Board of Preventive Veterinary Medicine.

PROF. DR. ARJAN STEGEMAN
Utrecht University, The Netherlands

Arjan Stegeman is full professor of Farm Animal Health/ Epidemiology of Infectious Diseases at Utrecht University, The Netherlands. He is a veterinarian by training and a diplomate of the European College of Veterinary Public Health. His research is focused on the epidemiology of infectious diseases in farmed animals aiming to unravel the mechanisms that determine the occurrence of infectious diseases in populations and establish the effectiveness of intervention measures. For that goal his group applies animal experiments, field studies and mathematical modelling. (Co)-author of more than 200 peer reviewed publications/book chapters, see: https://www.uu.nl/staff/JAStegeman/2

DR. CAROLYN GATES
Massey University, New Zealand

Carolyn Gates is a Senior Lecturer in veterinary epidemiology at Massey University. She completed her veterinary degree at the University of Pennsylvania in 2010 concentrating in farm animal production medicine and her PhD at the University of Edinburgh in 2013 modelling the spread infectious disease through national cattle movement networks. She then worked as a shelter veterinarian for two years before moving to New Zealand. Her current research portfolio blends social science with data science to develop new approaches for increasing research engagement and adoption. This includes projects to build the business case for BVD eradication in New Zealand, to explore the behavioural drivers behind herd health decisions, and to design innovative educational and extension resources to better support animal health decision-makers at the animal, farm, and industry levels.

ASSO. PROF. DR. KEBEDE AMENU EJETA
Addis Ababa University, Ethiopia

Kebede Amenu Ejeta is an Associate Professor at College of Veterinary Medicine and Agriculture, Addis Ababa University, Ethiopia. He has more than 15 year of teaching, research and community service in animal health (veterinary epidemiology, food safety). He teaches several courses and programs such as Advanced Biostatics (PhD program), Food Safety and Quality (MVSc), Veterinary Public Health Research Ethics (PhD), Advanced One-Health and Emerging Zoonoses (PhD), Advanced Veterinary Food Hygiene (MVSc), Basic Epidemiology (MVSc). In 2015-2016, he was a a DAAD Postdoctoral Fellow and consultant at the International Livestock Research Institute (ILRI) in Addis Ababa. During 2002-2016, he was a lecturer and Researcher at School of Veterinary Medicine, Hawassa University. He graduated a Doctor of Veterinary Medicine (DVM), Faculty of Veterinary Medicine, Addis Ababa University, Ethiopia in 2002. He then completed his MSc degree in Tropical Animal Health (Epidemiological Data Collection and Processing), at Institute of Tropical Medicine Antwerp, Belgium in 2006. He obtained a PhD in Agricultural Sciences (Water Quality and Food Safety, University of Hohenheim, Germany in 2016.

SPECIAL PANEL DISCUSSION

"Future and Trend of Veterinary Epidemiolgy and Economics: Our challenges for bridging from theory to practices"

DR. ITSURO YAMANE
National Agriculture and Food Research Organization (NARO), Japan

Itsuro Yamane is Business Coordinator at Agri-Food Business Innovation Center (ABIC), National Agriculture and Food Research Organization (NARO), Japan

He has been specially appointed as a visiting professor at University of Tokyo and University of Gifu and a lecturer at University of Utsunomiya. In 1993-2016, he was a researcher in veterinary epidemiology and animal health economics of the National Institute of Animal Health, NARO.
In 1987, he graduated a D.V.M. from Obihiro University, Japan. Then, in 1988, he received a master degree of Preventive Veterinary Medicine at University of California, Davis, U.S.A. In 1993, he obtained a PhD in Epidemiology at University of California, Davis, U.S.A.

His main research interests focus on developing benchmarking system to evaluate productivity, disease status and antibiotic usage levels in pig sector, epidemiology and economic analysis on livestock animal diseases.

In addition, he also provides teaching on epidemiology in two veterinary schools (at University of Tokyo and University of Gifu and on livestock animal health in the agricultural school at University of Utsunomiya. He teaches veterinary epidemiology in other countries (such as Thailand and Vietnam) as part of the international collaborations supported by the Japan International Cooperation Agency (JICA).

DR. THANAWAT TIENSIN
Office of Agricultural Affairs, Royal Thai Embassy,
Permanent Representation of Thailand to UN Rome-Based Agencies, Italy
(Panel moderator)

Thanawat graduated a D.V.M. from Kasetsart University, Thailand in 1996. He started his career as a field veterinarian at the Regional Livestock Office, Thailand. Then, he joined the Food and Agriculture Organization of the United Nations (FAO), Regional Office for Asia and the Pacific in Young Professional Programme in 1998-1999. He worked at the Bureau of Disease Control and Veterinary Services, Department of Livestock Development (DLD) during 2000-2010. He also worked at the Office of Agricultural Affairs, the Mission of Thailand to the European Union in Brussels, Belgium from 2002 to 2003.

In 2005, he obtained a master degree on Veterinary Epidemiology and Economics from Utrecht University, The Netherlands, followed by a Ph.D. in 2011.

In addition, he has worked for the international development in North Korea (DPRK), Myanmar, Nepal, Lao PDR, Bangladesh and Indonesia on livestock emergency response, disease surveillance, veterinary epidemiology, risk analysis, animal movement control, international animal trade, SPS measures, capacity building of Performance of Veterinary Services (PVS), dairy development and school milk programme. In 2013-2015, he worked at Division of International Livestock Cooperation, DLD, Thailand. He was a Senior Expert in International Livestock Trade and Veterinary Policies in 2016-2017. Then he was appointed as an Acting Assistant Director General (ADG) of DLD in 2017-2018.

Currently, he is a Permanent Representative of Thailand to the UN Rome-Based Agencies (FAO, WFP and IFAD) at the Office of Agricultural Affairs, Royal Thai Embassy in Italy.

ACKNOWLEDGEMENTS

INFO ON SOCIAL MEDIA

If you use social media i.e., Facebook, LinkedIn or Twitter during the conference to give (constructive) feedback on any of the posters, presentations or conference issues or to vote for the oral and poster presentation award, please use hashtag **#ISVEE15**. Your facebook and tweets will be shown on the facebook and twitter wall.

LEGEND:

Keynote	Symposium	Poster Session	Special Session	Social Function	Coffee Break/Exhibition/Poster viewing	Lunch	Lunch Symposium

Registration: 07.30 - 17.00

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
8:30-9:15	Opening Ceremony (Grand Hall, Level 3, Convention Centre)								
9:15-10:15	Keynote 1 (Grand Hall, Level 3, Convention Centre) *Dirk Pfeiffer* "Translating epidemiology into evidence and practice" *Chaired by Theera Rukkwamsuk*								
10:15-10:45	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
10:45-12:00	ISVEE Special Panel Discussion - "Future and Trend of Veterinary Epidemiolgy and Economics: Our challenges for bridging from theory to practices" (Grand Hall, Level 3, Convention Centre) Panelists: *Prof. Dr. Jorge A Hernandez, Dr. Lis Alban, Prof. Dr. Arjan Stegeman, Dr. Carolyn Gates, Asso. Prof. Dr. Kebede Amenu Ejeta, Dr. Itsuro Yamane* Moderator: *Thanawat Tiensin*								
12:00-13:20	LUNCH (Level 1, Convention Centre)								

Time	Symposium 8.1 Health policy and capacity building	Symposium 1.1 Health policy and capacity building	Symposium 2.1 One health (animal-human-environment interface)	Symposium 3.1 Epidemiologic principles and methods	Symposium 4.1 Health policy and capacity building	Symposium 5.1 Epidemiologic principles and methods	Symposium 6.1 Epidemiologic studies in specific species/topics	Symposium 7.1 Epidemiologic studies in specific species/topics	
Chairperson	*Pipat Arunvipas*	*Nuvee Prapasarakul*	*Katharina Staerk*	*Dirk Pfeiffer*	*Cord Heuer*	*Junxia Song*	*Saharuetai Jeamsripong*	*Tim Carpenter*	
13.20-13.40	*Victoria Brookes* Why are humans sentinels for canine-rabies incursions?	*Clémence Boireau* Understanding the use of antimicrobial susceptibility testing by French veterinarians to better interpret antimicrobial resistance surveillance data	*Ingrid Maribel Leon Moreno* Genotypic and phenotypic diversity of Salmonella enterica isolated from patients at an equine referral hospital	*Veronique Chevalier* Modelling recurrent circulation of Rift Valley fever virus in northern Senegal	*Beat Thomann* Economic evaluation of the eradication program for bovine viral diarrhea in the Swiss dairy sector	*Morgane Salines* Using pig movement network as a support tool for the development of risk-based surveillance strategies of swine pathogens: application to hepatitis E virus	*Aurélie Merlin* Equine owners and rendering companies: a complex relationship that can help to improve equine traceability	*Michael Ward* Dog days and dingo nights: cross-species interactions to inform rabies spread modelling	APHCA Business Meeting (By invitation only) *Katinka DeBalogh* (APHCA Secretariat)
13.40-14.00	*John Grewar* Close to real-time conversion of basic space time data into valuable information using open-source technologies: the South African HPAI outbreak as an example	*Britt Bang Jensen* Surveillance of viral disease with total coverage: Money well spent?	*Noellie Gay* Risk factors of extend-ed-spectrum β-lactamase producing enterobacteriace-ae occurrence in commercial farms in Reunion, Mada-gascar and Mayotte Islands, 2016-2017	*Giovanni Lo Iacono* The impact of environment on vector-borne diseases; the case of Rift Valley fever	*Emily Nixon* Treatment strategies for sheep scab: an economic model of farmer behaviour	*Beatriz Vidondo* Dynamic network measures reveal the impact of cattle markets and alpine summering on the risk for epidemic outbreaks in the Swiss cattle population	*Peta Hitchens* Meta-analysis of risk factors for catastrophic musculoskeletal injury in racehorses	*Andrew Brownlow* Epidemiology of wild marine mammal mortalities in the UK- 25 years of strandings surveillance	
14.00-14.20	*Laura Skippen* Improving animal healthcare decision-making in Ethiopian paraprofessionals using a smartphone application	*Yusuf Havan* Antimicrobial usage surveillance of animal health in Indonesia to address antimicrobial resistance	*Gizem Levent* Effects of antibiotics on bacterial resistance and serotype diversity of Salmonella enterica originating from lymph nodes, fecal and hide samples of feeder cattle at slaughter	*Noémie Courtejoie* Bluetongue disease dynamics and control in France: from emergence to re-emergence	*Sue Tongue* Modelling interventions to mitigate production loss due to Fasciola hepatica in key UK cattle sectors	*Victoria Brookes* Social network analysis of free-roaming dog populations in the Torres Strait, Australia, to inform disease spread modelling	*Jackie Tapprest* The French surveillance network of equine mortality causes: a new way of monitoring the horse industry	*Alison Hillman* Anthropozoonotic parasites in urban dwelling marsupials in the greater Perth region, Australia	
14.20-14.40	*Eliana Lima* What factors influence the adoption of technology for improved recording in sheep flocks? The importance of farmers' attitudes	*Marta Hernandez-Jover* Disease monitoring and reporting among Australian beef and sheep producers: A cross-sectional study of levels of responsibility for surveillance.	*Ethan Taylor* Effects of a two-dose ceftiofur treatment for metritis on levels of antimicrobial resistance among fecal Escherichia coli in Holstein-Friesian dairy cows at the time of slaughter-eligibility	*Morgane Salines* Designing a stochastic individual-based multi-pathogen model to understand hepatitis E virus (HEV) dynamics in a farrow-to-finish pig farm	*David Hall* Use of a stochastic production frontier approach to examine impact of gastrointestinal nematode management in beef cow-calf herds in Canada.	*Aurelio Cabezas* A description of the U.S. livestock industry: spatial and network analysis of Interstate Certificates of Veterinary Inspection animal movements from April 2015 to March 2016	*Danica Pollard* Incidence rate and clinical signs of owner-reported laminitis in a cohort of horses and ponies in Great Britain	*Vanessa Gabriele-Rivet* Infectious disease transmission at the wild dog – Domestic dog interface in remote indigenous communities in Northern Australia	
14.40-15.00				*María Natalia Aznar* Bovine brucellosis within-herd modeling to simulate infection dynamics and evaluate different control strategies	*Ian Patrick* Smallholder benefits and costs of a FMD control program in Cambodia	*Jason Onell Ardila Galvis* Integration of SQI, R and shiny to analyze interactively animal trade network	*Danica Pollard* A prospective web-based cohort study to identify factors associated with owner-reported laminitis development in horses and ponies in Great Britain		

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
15:00-15:30	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
	Symposium 8.2 Health policy and capacity building	Symposium 1.2 Special section: Our trend and future	Symposium 2.2 One health (animal-human-environment interface)	Symposium 3.2 Epidemiologic principles and methods	Symposium 4.2 Health policy and capacity building	Symposium 5.2 Epidemiologic principles and methods	Symposium 6.2 Epidemiologic studies in specific species/topics	Symposium 7.2 Epidemiologic studies in specific species/topics	
Chairperson	Pipat Arunvipas	Nuvee Prapasarakul	Katharina Staerk	Dirk Pfeiffer	Cord Heuer	Junxia Song	Saharuetai Jeamsripong	Tim Carpenter	
15.30-15.50	Michel Dione Why smallholder pig value chain actors are not willing to report disease outbreak or comply to animal movement restrictions: case of African swine fever in Uganda?	Peter Hobbelen Seasonal risk for avian influenza virus introductions into free-range layer farms and implications for control strategies in the Netherlands	Casey Cazer Applying machine learning techniques to antimicrobial susceptibility data	Valentine Poirier Using sociological data in scenario tree modelling: the example of the evaluation of the French bovine tuberculosis surveillance system	Guillaume Lhermie Assessing the aggregate market costs of restrictions on antimicrobial use in U.S. dairy production	Jason Onell Ardila Galvis Spatial risk and transmission of bovine tuberculosis in Espírito Santo, Brazil	Cajsa Isgren Epidemiology of multi-drug resistant ESBL-producing E. coli isolated from horses at five equine hospitals in the UK	Ravi Disasnayake Factors affecting incidental koala sightings in Queensland, Australia	APHCA Business Meeting (By invitation only) Katinka DeBalogh (APHCA Secretariat)
15.50-16.10	Fabrizio De Massis Epidemiological investigations in animal disease outbreaks: a web-based system for reporting and managing the information collected.	Daesung Yoo The Assessment of Preventive measures against highly pathogenic avian influenza (HPAI) H5N6 infection in chicken eggs layer farms in Republic of Korea	H. Morgan Scott Determining the prevalence and diversity of Salmonella enterica from market hogs at slaughter	Simon Firestone Reconstructing foot-and-mouth disease outbreaks: a methods comparison of transmission network models	Dustin Pendell Assessing the economics associated with cattle health and production research trial results	Caitlin Pfeiffer Time to consider livestock movement as a temporal network: temporal network analysis of Australian sheep movement data	Jackie Tapprest Combined use of two national equine databases in order to get a better knowledge of equine mortality and other demographic issues in France.	Nistara Randhawa Where do bats go? Shedding light on virus exposure pathways and surveillance strategies by tracking bats	
16.10-16.30		Christopher Hamilton-West Risk based surveillance of influenza virus in wild birds in Chile	Olanrewaju James Does the use of lower-order beta-lactam antibiotics in food animal production over-select for higher-order beta-lactamase resistance of consequence to human health?	Nicolas Rose Control of swine influenza A virus endemic persistence in farrow-to-finish herds: insights from a stochastic metapopulation model	David Roy Smith How would eliminating pneumonia in calves prior to weaning affect the net income of the US cow-calf industry?		Clémence Boireau Dynamic of antimicrobial resistance in diseased horses in France since 2012	Anita Michel Towards diagnosing tuberculosis in pachyderms: the contribution of species-specific interferon gamma assays	
16:30-17:30	Poster session (Level 3, Convention Centre)								

Registration: 07.30-17.00

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
8.30-9.20	Keynote 2 (Grand Hall, Level 3, Convention Centre) — Wantanee Kalpravidh — "Strengthening Transboundary Animal Diseases through the Veterinary Epidemiology Capacities and Networks in Asia" — Chaired by Kachen Wongsathapornchai								
	Special session on African Swine Fever	Special session (ILRI) Healthy food in informal markets – hazards, risks, trade-offs and synergies	Symposium 10.1 One health (animal-human-environment interface)	Symposium 11.1 Epidemiologic principles and methods	Symposium 12.1 Epidemiologic studies in specific species/topics	Symposium 13.1 Epidemiologic studies in specific species/topics	Symposium 14.1 Epidemiologic studies in specific species/topics	Symposium 15.1 Epidemiologic studies in specific species/topics	Symposium 16.1 Health policy and capacity building
Chairperson		Kohei Makita	Terdsak Yano	Sudson Sirivaidyapong	Karin Orsel	Jorge Hernandez	Gustavo Monti	Lis Alban	Kachen Wongsathapornchai
9.30-9.50	• General introduction (FAO & OIE) • China: Overview of the current situation (Wang Youming, CAHEC, China) • Spatial analysis of ASF outbreaks in China (Yu Qi, FAO)	Delia Grace Key note: Food safety in informal markets: what works and why.	Korakrit Poonsuk Effect of sample handling on the detection of PRRSV in Oral fluids by real-time quantitative reverse transcription polymerase chain reaction (qRT-PCR)	Victoria Brookes A network-based simulation model to predict the probability and impact of a rabies incursion in the Torres Strait, Australia	Inge Santman-berends Monitoring quality of young stock rearing in dairy herds: a data-based scoring method	Céline Faverjon Big Data approach in swine production system: effect of transport conditions on carcass quality	Naomi Prosser Ewe lameness: prevalence and risk factors in 162 English sheep flocks in 2015	Hildegunn Viljugrein Emergence of tick-borne diseases at northern latitudes in Europe: a comparative approach	Lis Alban Risk assessment for pleuromutilins in pigs – using European Medicine Agency's guidelines
9.50-10.10			Gertraud Schüpbach The effect of herd health consulting on reducing antimicrobial usage in Swiss pig farms	Aurelio Cabezas A model of foot-and-mouth disease transmission, detection, and intervention strategies within a U.S. beef feedlot	Maria J Vilar Report on the use of antibiotic dry cow therapy (DCT) in Finnish dairy herds	Terri O'Sullivan Using network analysis to evaluate the role of feed suppliers during the early months of the 2014 porcine epidemic diarrhea Canadian outbreak	Gezahegn Alemeyehu Ayalew Bacterial causes of small ruminant abortion: A systematic review and meta-analysis	Veronique Chevalier Trophic behavior of Japanese Encephalitis vectors in Cambodia	Clazien J. De Vos Rapid risk assessment of exotic animal disease introduction
10.10-10.40	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
	Special session on African Swine Fever	Special session (ILRI) Healthy food in informal markets – hazards, risks, trade-offs and synergies	Symposium 10.2 One health (animal-human-environment interface)	Symposium 11.2 Epidemiologic principles and methods	Symposium 12.2 Epidemiologic studies in specific species/topics	Symposium 13.2 Epidemiologic studies in specific species/topics	Symposium 14.2 Epidemiologic studies in specific species/topics	Symposium 15.2 Epidemiologic studies in specific species/topics	Symposium 16.2 Health policy and capacity building
Chairperson		Kohei Makita	Terdsak Yano	Sudson Sirivaidyapong	Karin Orsel	Jorge Hernandez	Gustavo Monti	Lis Alban	Kachen Wongsathapornchai
10:40-11:00	• The economics of ASF (Damian Tago, FAO RAP) • Pig-related food systems in China and SE Asia (John Edwards, AUSVET) • International coordination for research: how to move on? (Cyril Gay, GARA, USDA, USA) • Southern Africa and Indian Ocean: research activities and future NIH regional project (Eric Etter, CIRAD, France & Beatriz Martinez, UC Davis, USA) • Integrating research on ASF to inform design of targeted surveillance and control in east Africa (Edward Okoth, ILRI, Kenya-Ethiopia) • Europe: lessons learnt (Carola Sauter, FLI, Germany & Timothée Vergne, ENVT, France)	Fred Unger Pathways towards safer pork in Vietnam	Amanda Brinch Kruse Sow herd typologies based on biosecurity, productivity, antimicrobial and vaccine use data	Paul Bessell A simplified model of bluetongue risk in Europe	Julia Hertl Estimation of the cost of different severity levels of lameness in dairy cows: A dynamic programming approach	Morgane Salines Viral co-infections affect hepatitis E virus (HEV) infection dynamics in pigs and increase the risk of contaminated livers at slaughter	Caitlin Pfeiffer Can farmers' observations help us determine prevalence? Quantifying ewe mortality based on imperfect data	Pierre Villard Use of entomology surveillance data for modeling culicoides abundance in mainland France	Uli Muellner So many risk organisms, so little time – building a framework for the New Zealand dairy industry to effectively assess biosecurity risks
11:00-11:20		Silvia Alonso Is my milk safe? Characterizing the quality and safety of the milk consumed in low-income households in Nairobi	Chika Okafor Antimicrobial use practices of veterinary clinicians at a veterinary teaching hospital in the United States	Gianluigi Rossi Combining genetic and epidemiological data to unveil bovine tuberculosis spread pathways	Prakit Srisai Myocardial infarction in beef and buffalo calves during Foot and Mouth Disease outbreak in Nakhon Phanom province, Thailand, Dec 2016 – Jan 2017	Gustavo Machado Data-driven predictions and novel hypotheses about outbreaks of porcine epidemic diarrhea virus based on neighboring farms and disease intelligence	Jeanne Coffin-schmitt Transmission patterns of Peste des Petits Ruminants in the Karamoja region of Uganda	Shumoos Al Riyami Modelling the spatial distribution of the bluetongue vector culicoides brevitarsis in Australia	Jun-Hee Han Untangling farm management risk factors for bovine viral diarrhoea virus infection using Bayesian network modelling
11:20-11:40		Johanna Lindahl Aflatoxins in the dairy value chain- a challenge for the informal markets?	Charlotte Doidge Drivers for antimicrobial use in sheep farms in the UK	Salome Dürr Novel approach for sensitivity analysis for epidemiological models combining Sobol indices and polynomial chaos expansion	Ingrid Holmøy Streptococcus agalactiae mastitis: an indication of sequence type-specific effect on milk production in Norwegian dairy cows	Dale Polson Characterization of temporal and spatial patterns of clinical respiratory episodes in growing pigs using continuous sound monitoring and an algorithm-based respiratory distress index	Torben Nielsen Sheep health, welfare and value chain improvement in South Australia	John Grewar A field investigation of an African horse sickness outbreak in the controlled area of South Africa in 2016	Amie Adkin The highs and lows of maintaining risk assessments over time: lessons learnt from 14 years of the BSE-Control risk assessment
11:40-12:00		Hung Nguyen Research and training partnership to assist food safety in Vietnam and Cambodia	Philip Joosten Assigning defined daily doses for antimicrobials registered for usage in turkeys to enable a cross-country quantification and comparison of antimicrobial consumption in 60 French, German and Spanish turkey farms	Emily Hudson Estimating contact rates from utilisation distributions of dogs: the influence of roaming patterns.	Mark Stevenson The prevalence of Fasciola hepatica in irrigated dairy regions of Victoria, Australia	Juan Manuel Sanhueza The effect of PRRS outbreak season on time to stability	Jose Canevari The association between Coxiella burnetii shedding at the time of parturition in dairy goats and daily milk yields produced during the subsequent lactation	John Grewar A freedom of disease survey: African horse sickness virus in South Africa's surveillance zone in 2017	Jarkko Niemi Assessing financial costs of production diseases to pig farms

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
12.00-13.20	LUNCH (Level 1, Convention Centre)								
	Special session on African Swine Fever	Symposium 9.2 1. One health (animal-human-environment interface) 2. Epidemiologic studies in specific species/topics	Symposium 10.3 One health (animal-human-environment interface)	Symposium 11.3 Epidemiologic principles and methods	Symposium 12.3 Health policy and capacity building	Symposium 13.3 Epidemiologic principles and methods	Symposium 14.3 Epidemiologic studies in specific species/topics	Symposium 15.3 Epidemiologic studies in specific species/topics	Symposium 16.3 Epidemiologic studies in specific species/topics
Chairperson		Pipat Arunvipas	Theera Rukkwamsuk	Nuvee Prapasarakul	Terdsak Yano	Michael Ward	Lis Alban	Saharuetai Jeamsripong	Theresa Bernardo
13.20-13.40	• Lab and field data needs for computing epi parameters, R0 (Claire Guinat, ENVT, France) • Vaccine research: state of play (Linda Dixon, IAH, UK) • Risk studies in Asia (1): preliminary outputs of dynamic and spatial modelling work (Lisa Kohnle, CY HK) • Risk studies in Asia (2): risk assessment framework	Marianne Sandberg The association between visual inspection of slaughter hygiene, using Hygienic Performance Rating and microbiological contamination of sheep and cattle carcasses	Solenne Costard Are foodborne illnesses due to beef contaminated with antimicrobial resistant bacteria correlated with prophylactic use of antibiotics in beef cattle?	Agricola Odoi Spatial clustering of staphylococcal infections and antimicrobial resistance among dogs presented at a veterinary teaching hospital in South Africa	Karin Orsel Economic impact of five control strategies to reduce BLV prevalence in endemic region in Canada	Chalutwan Sansamur Cattle dung trader: a potential hidden actor for the spread of FMD virus between beef and dairy cattle farms in Northern Thailand.	Gema Vidal Survey of equine evisceration following castration considering method, position, and breed.	George Omondi Molecular epidemiology of foot-and-mouth disease virus in rangelands shared by African buffalo and cattle in Kenya	Kendy Tzu-Yun Teng Welfare-Adjusted Life Years (WALY): A novel metric of animal welfare that combines the impacts of impaired welfare and abbreviated lifespan
13.40-14.00		Charlotte Winder Effects of local anesthetic and/or systemic analgesia on pain associated with cautery disbudding in calves: A systematic review and meta-analysis	Skye Fruean A novel participatory strategy to reduce antimicrobial use in agricultural systems	Emily Hudson The effects of different romaing patterns and their contact rates on the spread of canine-rabies in Northern Australia.	Georgina Limon Estimating the economic impact of lumpy skin disease and sheep and goat pox outbreaks on subsistence farmers in Nigeria	Stephen Catterall Improving disease contact tracing using individual animal data	Tanya Rossi Infectious respiratory disease in a standardbred training facility: incidence, clinical signs, and risk factors for infection.	Sónia Jesus Fontes The impact of elephant endotheliotropic herpesvirus hemorrhagic disease on the European captive population of Asian elephant (Elephas maximus)	Simon Firestone Raw chicken consumption, campylobacter infection and acute polyradiculoneuritis in dogs
14.00-14.20		Terri O'Sullivan Assessment of the analgesic efficacy of ketoprofen and meloxicam when compounded with iron dextran and administered to piglets at the time of castration	Elizabeth Miller Understanding the role of anthropogenic landscapes in wildlife antimicrobial resistance: merging metagenomics and spatial epidemiology	Lars Qviller A discussion on synchronized fallowing to control salmon lice populations in aquaculture based on empirical evidence	Kyaw Naing Oo A cross sectional study to estimate the dog population and economic impact on the use of mass rabies vaccine in a township located at Nay Pyi Taw Council area of Myanmar	Hannah Seger Analysis of temporal contact networks in feedlot cattle and implications for disease transmission model assumptions	Tanya Rossi Use of proximity loggers to establish contact patterns in a multi-barn standardbred training facility	Andrew Breed Between roost contact is essential for maintenance of European bat lyssavirus type-2 in Myotis daubentonii bat reservoir: 'The Swarming Hypothesis'	Kimberly Woodruff An estimate of the number of dogs in US shelters and their fate
14.20-14.40		Shauna Richards Evaluation of welfare and cow comfort through a controlled field trial on smallholder dairy farms in Central Kenya	Diego Nobrega Restriction in the use of antimicrobials in food animals and its association with prevalence of antimicrobial resistance fenes – A systematic review	Giulia Paternoster Spatial analysis of human echinococcosis in Kyrgyzstan	Thanawat Tiensin OIE PVS Pathway: Tool for the evaluation and improvement of Performance of Veterinary Servies from Thailand's expereince	Jun-Hee Han Reconstruction of the cattle movement network in New Zealand: exploring the underlying drivers of cattle trade	Gustavo Machado Uncovering contact patterns and network dynamics of equine movements and association with Burkholderia mallei outbreaks	Michel De Garine-wichatitsky Chicken or the egg, or neither? Wildlife-livestock multi-host prevalence surveys of infectious abortion in interface areas of the SE Lowveld of Zimbabwe 2008-2017	Kimberly Woodruff Progression of surgical efficiency, incision length and complication rate in senior veterinary students enrolled in a 2 week spay/neuter surgical elective
14.40-15.00			Anouk Veldhuis Comparing risk-based versus random sampling in antimicrobial residue surveillance in finishing pigs in the Netherlands.				Patricia Pearce Utilising opportunistic primary care data for equine disease surveillance in New Zealand	Yvette Johnson-Walker Avian Influenza Outbreak Response in US Zoos and Aquariums	Natascha Meunier Reproducibility of the mark-resight meth+A49:J53od for estimating abundance in free roaming dogs
15.00-15.30	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
	Special session on African Swine Fever	Symposium 9.3 Epidemiologic studies in specific species/topics	Symposium 10.4 One health (animal-human-environment interface)	Symposium 11.4 Epidemiologic principles and methods	Symposium 12.4 Health policy and capacity building	Symposium 13.4 Epidemiologic principles and methods	Symposium 14.4 Epidemiologic studies in specific species/topics	Symposium 15.4 Epidemiologic studies in specific species/topics	Symposium 16.4 Epidemiologic studies in specific species/topics
Chairperson		Pipat Arunvipas	Theera Rukkwamsuk	Nuvee Prapasarakul	Terdsak Yano	Michael Ward	Lis Alban	Saharuetai Jeamsripong	Theresa Bernardo
15.30-15.50	• Development of Research Map and Coordination Framework • Facilitated workshop/ Expert opinion workshop Resource persons: *François Roger*, CIRAD *Dirk Pfeiffer*, City University of Hong Kong *Flavie Goutard*, CIRAD, Regional Research Network in SE Asia *Wantanee Kalpravidh*, FAO RAP *Junxia Song*, FAO RAP *Aurelie Brioudes*, FAO RAP	Korakrit Poonsuk Detection of porcine epidemic diarrhea virus (PEDV) antibodies in meat juice specimens using PEDV enzyme-linked immunosorbent assay (ELISA)	Juan Carrique Mas Antimicrobials and disease: Impact of antimicrobial misuse in chicken farming systems in Vietnam	Mark Stevenson Risk factors for bovine rabies in Rio de Janeiro state, Brazil, 2010-2016	Sangay Rinchen A Preliminary economic analysis to assess the benefits of vaccinating cattle against rabies in selected rabies high-risk areas of Bhutan	Younjung Kim Livestock trade network: the potential for disease transmission and implications for risk-based surveillance on the island of Mayotte	Gustavo Machado Estimating the potential distribution of the infectious pathogen Pythium insidiosum between two Latin American countries	Louis van Schalkwyk Baseline exposure to rabies and targeted vaccination of a large population of free-roaming African wild dogs in the Kruger National Park, South Africa	Harish Tiwari A comparative study of enumeration techniques for Free-roaming dogs in rural Baramati, District Pune, India
15.50-16.10		Korakrit Poonsuk Oral fluid specimens can be clarified ("cleaned up") without affecting porcine epidemic diarrhea virus (PEDV) isotype-specific (IgG, IgA) ELISA responses	Kate Mellor Variation in antimicrobial resistance profile diversity of isolates of Salmonella typhimurium between UK chicken, cattle and swine populations	Ana Pérola Drulla Brandão Spatial analysis of canine visceral leishmaniasis in Panorama city, São Paulo, Brazil	Francisco Fernando Calvo-Artavia The cost of livestock-associated methicilin-resistant Staphylococcus aureus eradication from Danis pig herds	M. Carolyn Gates Understanding how disease information diffuses through farmer social networks	Jane Heller Human disease from Chlamydia psittaci associated with equine foetal membranes and critically ill neonates: an example of a One Health approach to an emerging risk in a climate of poor diagnostic capacity and minimal funding.	Eduardo Berriatua City zoos in Mediterranean countries: a safe haven for Leishmania infantum?	Anne Conan Bias analyses for observational studies: Non-specific protective effect of rabies vaccine on all-cause mortality in dogs
16.10-16.30		Jan Tind Sørensen Antimicrobial usage in organic pig production with reference to in-door conventional production in Denmark	Tarni Cooper Livelihoods and antimicrobial stewardship among smallholder livestock farmers and animal healthcare workers in Thai Nguyen Province, Vietnam: a cross-sectional survey	Anne Meyer Spatial autocorrelation in a non-linear disease risk environment			Anke Wiethoelter Attitudes and risk perception of Australian horse owners towards flying foxes in relation to Hendra virus		
16:30-17:30	Poster session (Level 3, Convention Centre)								

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
	Registration: 08.00-17.00								
8:30-9:20	Keynote 3 (Grand Hall, Level 3, Convention Centre) Dr. Edmund Peeler "The Emergence of Aquatic Animal Diseases: Drivers, Impact and Management" Chaired by Thanawat Tiensin								
	Special session (FAO) "Changing disease landscapes in the Asia Pacific region: beyond risk factor epidemiology"	Symposium 9.1 One health (animal-human-environment interface)	Symposium 18.1 One health (animal-human-environment interface)	Symposium 19.1 Epidemiologic principles and methods	Symposium 20.1 Epidemiologic studies in specific species/topics	Symposium 21.1 Epidemiologic studies in specific species/topics	Symposium 22.1 Epidemiologic studies in specific species/topics	Symposium 23.1 Special section: Our trend and future	Symposium 24.1 Epidemiologic studies in specific species/topics
Chairperson	Peter Black	Michael Ward	Katharina Staerk	Flavie Goutard	Karin Orsel	Pipat Arunvipas	Nuvee Prapasarakul	Theera Rukkwamsuk	Terdsak Yano
9.30-9.50	Timothy Robinson (FAO Rome) "Shaping the future of livestock: Issues around sustainability".	Anna Brasileiro National Prevalence of Salmonella spp. in Poultry Slaughterhouses under Federal Inspection in Brazil, 2017.	Philip Joosten Quantitative and qualitative description of antimicrobial usage in 181 broiler farms in 9 European countries	Timothée Vergne Mitigating the risk of highly pathogenic avian influenza in the Vietnamese nomadic free-grazing duck system	Gema Vidal Can precision dairy monitoring technologies (PDMT) be used for early detection of changes in metritis status in dairy cattle during post-partum?	Tamsin Barnes Evaluation of Gross Thoracic Lesions in Pigs from Selected Slaughterhouses in the Provinces of Batangas and Albay in the Philippines using Latent Class Analysis	Zoë Willis Footrot in sheep: What's n-ewe in the Dichelobacter nodosus community?	Clazien J. De Vos Risk of between-herd transmission of foot-and-mouth disease virus by milk collection	Omid Nekouei Sea lice (Lepeophtheirus salmonis) transmission between farmed and wild salmon in Muchalat Inlet, British Columbia
9.50-10.10	Thomas Van Boeckel (ETH Zurich- Swiss Federal Institute of Technology) Mapping antimicrobial resistance in animals in low- and middle-income countries.	Hiwot Desta Awareness of zoonoses among small holder livestock producers in Ethiopia	Philip Joosten Randomness of antimicrobial usage regarding choice of antimicrobial class and dosage on pig, poultry, turkey and veal calf farms.	Rebecca Smith The effect of co-morbidity on disease control decisions: a stochastic modeling approach	Herman Barkema Prevalence of Mycobacterium avium subsp. paratuberculosis infections in Canadian dairy herds	Juan Manuel Sanhueza Descriptive epidemiology of porcine reproductive and respiratory syndrome summer outbreaks in US sow farms	Eliana Lima Impact of vaccination, lameness control and biosecurity practices on the productivity of 649 British sheep flocks	Yoko Hayama Reconstructing a transmission network and identifying risk factors of secondary transmissions in the 2010 foot-and-mouth disease epidemic in Japan	Krishna Thakur Screening for the presence of infectious agents in historical Sockeye salmon (Oncorhynchus nerka) samples from British Columbia, Canada (1985-1994)
10.10-10.40	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
	Special session (FAO) "Changing disease landscapes in the Asia Pacific region: beyond risk factor epidemiology"	Symposium 17.1 Health policy and capacity building	Symposium 18.2 One health (animal-human-environment interface)	Symposium 19.2 Epidemiologic principles and methods	Symposium 20.2 Epidemiologic studies in specific species/topics	Symposium 21.2 Epidemiologic studies in specific species/topics	Symposium 22.2 Epidemiologic studies in specific species/topics	Symposium 23.2 Special section: Our trend and future	Symposium 24.2 Epidemiologic studies in specific species/topics
Chairperson	Ian Dacre	Michael Ward	Katharina Staerk	Flavie Goutard	Karin Orsel	Pipat Arunvipas	Nuvee Prapasarakul	Theera Rukkwamsuk	Terdsak Yano
10:40-11:00	Dominic Smith (University of Queensland) Modelling livestock production in Southeast Asia	Kymberly VanderWaal Assessment of the bovine tuberculosis control program in Uruguay; what can we do better?	Biruk Alemu Gemeda Antimicrobial use in smallholder livestock systems in the highlands of Ethiopia	Amy Burroughs Using directed acyclic graphs (DAGs) for hypothesis generation and a priori model building: An investigation of risk factors for SRS and lice in Chilean salmonids	Megan Jewell Relationships between type of hoof lesion and behavioural signs of lameness in Holstein cows housed in tie-stall facilities	Heiko Nathues Modelling the economic efficiency of using different strategies to control Porcine Reproductive & Respiratory Syndrome at herd level	Ellen Geerlings Small ruminants' health and production indicators for migratory Kuchi serviced by Veterinary Field Units in Central Afghanistan.	Aurelio Cabezas Clinical and infection dynamics of foot-and-mouth disease in beef feedlot cattle: An expert survey	Brendan Cowled Use of regulatory surveillance data for industry sanitary improvement: A case study of Chilean salmonid data and salmon rickettsial septicaemia risk factors

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
11:00-11:20	*Guillaume Fournié (Royal Veterinary College)* Live bird marketing: from infrastructural to structural interventions	*Okta Wismandanu* Escalating community participation to sustain the rabies program	*Sinh Dang-xuan* Knowledge, attitude and practices survey on antimicrobials use and antimicrobial resistance in livestock and aquaculture production in Vietnam	*Thibaud Porphyre* Inferring the spatial spread of highly pathogenic avian influenza H5N2 clade 2.3.4.4 during the 2015 epidemics in Iowa	*John Vanleeuwen* Animal and management factors associated with weight gain in dairy calves/heifers on smallholder dairy farms in Kenya	*Claire Guinat* Inferring within-herd transmission parameters for African swine fever outbreaks using mortality data	*Alison Hillman* Causal web of ovine breech flystrike in Australia	*Chris Bartels* Assessment of the risk of incursion of exotic FMD viruses into Southeast Asia	*Kandarp Khodidas Patel* Risk factor analysis for improving post-harvest survival in Australian southern rock lobster holding facilities.
11:20-11:40	*Marius Gilbert & Madhur Dhingra (Université Libre de Bruxelles & FAO RAP)* Changing demographic and environmental factors and the emergence of highly pathogenic avian influenza	*Cord Heuer* Can FMD be controlled by risked-based partial vaccination?	*Claire Chauvin* Propensity score to assess treatment practices – an application to antimicrobial prevention in broiler production	*Suman Das Gupta* What are drivers that influence backyard and commercial farmers to implement avian influenza control in Bangladesh?	*Karin Alvåsen* Compliance to a recommended claw trimming routine in Swedish dairy herds		*Biruk Alemu Gemeda* Untangling the respiratory disease complex in small ruminants in Ethiopia	*Anna Munsey* Spatial epidemiology, phylogenetic history, and risk factors for foot-and-mouth disease in Uganda	*Charles Caraguel* Is 'too late' always too late? The case study of a retrospective investigation in ranched Southern Bluefin tuna (Thunnus maccoyii) mortality outbreak
11:40-12:00	*Dan Schar (United States Agency for International Development (USAID) & Tom Hughes (Ecohealth)* Economic modeling of emerging infectious diseases associated with land use change	*Jens Frederik Agger* Impact of diagnostic criteria on the Danish plasmacytosis control program between 2000 and 2015			*Jake Thompson* Field study to investigate the impact of dairy cow space allowance on health in GB dairy farms		*Muhammad-bashir Bolajoko* Epidemiology and economic impact of goat pox on small holder small ruminants farmers in Kanam local government area, North Central Nigeria	*Willem Vink* Epidemiological strengthening of FMD control in southern Lao PDR	*Jessica Deere* The use of a refined fish health assessment index to evaluate the effect of contaminants of emerging concern on fish health in Northeastern Minnesota, USA
12.00-13.20		**Lunch symposium by Clinag**	**LUNCH** (Level 1, Convention Centre)						
13.20-15.00	**ISVEE Business Meeting / Vote for ISVEE 2024** (Grand Hall, Level 3, Convention Centre)								**APHCA Business Meeting (By invitation only)**
15.00-15.30	**COFFEE BREAK / EXHIBITION** (Level 2, Convention Centre) / **POSTER VIEWING** (Level 3, Convention Centre)								
15.30-16:30	**ISVEE Business Meeting / Vote for ISVEE 2024** (Grand Hall, Level 3, Convention Centre)								**APHCA Business Meeting (By invitation only)**
16:30-17:30	**Poster session** (Level 3, Convention Centre)								
18:00-22:00	**Gala Dinner at Royal Flora Ratchapruek (10km from the city)**								

Registration: 08.00-17.00

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
8.30-9.20	Keynote 4 (Grand Hall, Level 3, Convention Centre) *Dr. Matthew Stone,* "A vision for global animal health and welfare programmes: intelligence informing strategy, capacity driving performance" *Chaired by Pipat Arunvipas*								
	Special session (OIE)		Symposium 26.1 One health (animal-human-environment interface)	Symposium 27.1 Special section: Our trend and future	Symposium 28.1 Epidemiologic studies in specific species/topics	Symposium 29.1 One health (animal-human-environment interface)	Symposium 30.1 Epidemiologic studies in specific species/topics	Symposium 31.1 Health policy and capacity building	Symposium 32.1 Epidemiologic principles and methods
Chairperson	9:30-9:50		*Pattrarat Chanchaithong*	*Alfred Dajer Abimerhi*	*Thanawat Tiensin*	*Gustavo Monti*	*Lesley van Helden*	*Michael Ward*	*Tim Carpenter*
9.30-9.50	*Mark Stevenson* Prioritising risk factors for FMD incursions in South-East Asian countries using multi-criteria decision analysis		*Colleen Murphy* Human exposure to antimicrobial-resistant bacteria from food animals: Findings from the IAM.AMR Project.	*Wendy Kwok* Unlocking the potential of veterinary clinical records using a data mining approach	*Nils Fall* The effect of infection with bovine corona virus on dairy milk shipped per cow per day	*Cord Heuer* Emergence of a new Leptospira strain causes public health concerns	*Seyyed Jamal Emami* Seroprevalence of avian influenza (H9N2) in broiler chicken flocks in Iran	*Bert Damiaans* Application of biosecurity in veal calf farms	*Javier Sanchez* Mediation analysis concepts: To control for or not to control for? That is the question
9.50-10.10	9:50-10:00 *Ashis Sutar* Epidemiological investigations on recent FMD Outbreaks in Lao PDR 10:00-10:10 *Ronello Abila* New features of the OIE WAHIS+		*Chika Okafor* A qualitative study of antimicrobial use practices among beef cattle producers in Tennessee, USA	*Ana Afonso* The Use of Machine Learning for Systematic Reviews in Epidemiology under the Remit of the European Food Safety Authority	*Wendi Jackson* Evaluating the effects of neonatal immunity and other animal-level and herd-level risk factors on liver abscess incidence in Holstein steers raised on feedlots in California	*Shauna Richards* One health approach to rabies management in Manitoba	*Maria Inês Neves* The transmission dynamics of campylobacter among broilers in semi-commercial farms	*Bert Damiaans* Development of a biosecurity evaluation tool for cattle: the BIOCHECK	*Ian Dohoo* Mediation analysis: A case-study
10.10-10.40	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
	Special session (OIE)	Symposium 25.1 Health policy and capacity building	Symposium 26.2 One health (animal-human-environment interface)	Symposium 27.2 Special section: Our trend and future	Symposium 28.2 Epidemiologic studies in specific species/topics	Symposium 29.2 One health (animal-human-environment interface)	Symposium 30.2 Epidemiologic studies in specific species/topics	Symposium 31.2 Health policy and capacity building	Symposium 32.2 Epidemiologic principles and methods
Chairperson		*Sroisuda Chotimanukul*	*Pattrarat Chanchaithong*	*Nuvee Prapasarakul*	*Thanawat Tiensin*	*Gustavo Monti*	*Lesley van Helden*	*Michael Ward*	*Tim Carpenter*
10:40-11:00	10:40-11:00 *Yu Qiu* Risk assessment of transboundary spread of FMD in Southeast Asia and China through livestock movements	*Margaret Good* Quality control of purified protein derivative tuberculins: essential for effective bovine tuberculosis control and eradication programmes	*Isaac Omwenga* Prevalence and antimicrobial resistance profiles of Staphylococcus aureus isolated from raw milk in pastoral areas of Northern Kenya	*Theresa Bernardo* A framework for health informatics: big ideas from big data	*William Sischo* Impact of OS supplementation on preweaned dairy calf growth	*Jennifer Perret* Prevalence of mental health outcomes in Canadian veterinarians	*David Hadrill* A value chain approach to enhance avian influenza A(H7N9) detection in Myanmar informal trade areas	*Harriet Auty* Exploring management practices and attitudes towards biosecurity of small-scale poultry and pig keepers	*Syed Ali Naqvi* Machine learning tools for understanding mastitis epidemiology
11:00-11:20	11:00-11:20 *Daan Vink* Think local, act national: status and perspectives of spatial FMD risk assessment in Lao P.D.R.	*Anouk Veldhuis* Quantitative epidemiological analyses from a voluntary BVDV control program supporting policymakers in the transition to national eradication in the Netherlands.	*Karin Sjöström* Antimicrobial resistance in the environment on dairy farms in Sweden	*Jasmeet Kaler* Using technological advances and machine learning to develop algorithms for livestock health and welfare	*John Vanleeuwen* Postpartum Subacute Ruminal Acidosis (SARA) and Subclinical Ketosis (SCK) in dairy cattle: frequency and effects on postpartum anestrus incidence risk	*Giovanni Lo Iacono* Developing a comparative conditional incidence to analyze relationships between local weather and Campylobacter infections in England and Wales	*Ahasanu Hoque* Poultry trading networks in Bangladesh: implications for control and surveillance of avian influenza.	*Uli Muellner* Less is more: Learnings from a biosecurity expert elicitation exercise	*Marlène Tremblay* Full Model Selection with Regression Trees
11:20-11:40	11:20-11:35 *Cord Heuer* Can FMD be controlled by partial risk based vaccination	*Annika van Roon* Qualitative comparison of BVDV control programmes in Europe to substantiate freedom from infection		*Dale Moore* The epidemiology of seasonal fluctuations in colostrum yield in Jersey cattle	*Manon Swanenburg* Biological and anthropogenic drivers for emerging zoonoses from an interdisciplinary perspective	*Van Nguyen Thi Bich* Prevalence and distribution of gastrointestinal helminths, and associated risk factors in small-scale chicken farms in the Mekong Delta of Vietnam	*Yunita Widayati* Identifying the characteristics of LBMs in the greater Jakarta area that reduce the risk of avian influenza transmission	*Younjung Kim* Estimation of market- and bird-level Newcastle disease (ND) prevalence from a complex sampling design
11:40-12:00	11:35- 12:00 *Nelly Marquetoux Masako Wada* Causes and consequences of FMD in Laos and Myanmar	*Inge Santman-berends* An innovative surveillance analysis tool for outcome-based comparison of freedom from infection in heterogeneous control programs			*Renu Gupta* Phylogenetic group and serotype of E. coli isolates as important risk factors affecting intensity of colibacillosis in broilers	*Raul Alegria-moran* Risk factors and spatial cluster determination for non-typhoidal Salmonella spp. circulating in backyard production systems raising poultry and/or swine in central Chile.	*Randall Singer* Pen trial to evaluate effects of necrotic enteritis disease prevention antibiotics on antimicrobial resistance in broiler litter	*Damian Tago* The (in)efficacy of biosecurity trainings - from trainings to changing practices	*Matthew Denwood* A general method for performing sample size calculations with non-standard hypothesis tests: an example application to the faecal egg count reduction test

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
12.00-13.20	LUNCH (Level 1, Convention Centre)								
	Symposium 32.3 1. Epidemiologic principles and methods 2. Health policy and capacity building 3. One health (animal-human-environment interface)	Symposium 25.2 Health policy and capacity building	Symposium 26.3 Special section: Our trend and future	Symposium 27.3 Epidemiologic principles and methods	Symposium 28.3 Health policy and capacity building	Symposium 29.3 Epidemiologic principles and methods	Symposium 30.3 Epidemiologic studies in specific species/topics	Symposium 31.3 Special section: Our trend and future	
Chairperson	Ian Dohoo	Cord Heuer	John Vanleeuwen	Theresa Bernardo	Theera Rukkwamsuk	Itsuro Yamane	Terdsak Yano	Barbara Wieland	
13.20-13.40	Charlotte Woolley Data cleaning; is it time to stop sweeping it under the carpet? Novel methods for epidemiological studies.	Ane Nødtvedt Controlling respiratory disease through biosecurity measures - The Norwegian control program for bovine respiratory syncytial virus (BRSV) and bovine coronavirus (BCV)	Lisa Boden Use of scenario planning methodologies to explore the long-term future of the veterinary epidemiology discipline	Jaber Belkhiria Identification of high risk areas for avian influenza outbreaks in California using disease distribution models	Bryony Jones The small ruminant market network in Afar Region, Ethiopia; implications for infectious disease transmission	Serguei Brener Impact of African Swine Fever occurrence on international swine meat trade - 2012 to 2016	Sarah Rosanowski Risk factors for race-day fatality in flat racing Thoroughbreds in Great Britain (2000 to 2013)	Kyaw Naing Oo Epidemiological study to understand livestock trading network and identify the relationship between trading connectivity and the occurrence of Foot and Mouth Disease (FMD) outbreak in Myanmar	
13.40-14.00	Timothée Vergne Impact of imperfect disease detectability on identification of epidemiological risk factors	Jose Alberto Erales Villamil Quantitative risk analysis for the introduction of bovine tuberculosis through infected cattle in Silvopastoral systems	Uli Muellner Bridging the gap – an interactive self-study tool for advanced epidemiological methods	Ravi Disasnayake Correcting observer-dependent detection bias in citizen science data when modelling abundance	Heiko Nathues Cost of porcine reproductive and respiratory syndrome virus at individual farm level – An economic disease model	Jerome Baron Spatial & temporal patterns of the swine trade in Argentina from 2011 to 2016 using graph theory and network analysis.	Chantil Sinclair From scientific evidence to horse welfare: Understanding barriers and drivers to implementation of optimal horse-care practices	Nick Lyons Use of pooled milk for foot-and-mouth disease surveillance in different production systems	
14.00-14.20	Navneet Dhand A piecewise linear mixed model to assess the effect of Hendra virus vaccination on horse racing performance	Anthony Duignan The role of tuberculin assays on naturally infected cattle in the Irish bovine tuberculosis eradication programme	Jane Heller A novel way of bringing One Health to veterinary and medical students	Sarsenbay Abdrakhmanov Comparison of spatiotemporal patterns of historic animal anthrax outbreaks in Minnesota and Kazakhstan		Jaber Belkhiria Application of exponential random graph models to determine nomadic herders' movements in Senegal	Kelsey Spence Describing horse owners' knowledge, awareness and perceptions of exotic diseases	Moh Alkhamis Novel Insights into the evolutionary epidemiology of SAT1 and SAT2 Foot-and-Mouth Disease Virus in Eastern and Southern Africa	
14.20-14.40	Masako Wada Impacts of climate change on facial eczema spore counts in New Zealand		Sithar Dorjee Integrating education into One Health action: South Asian Experience	Peter Thomson Using climate data to create prediction models for brucellosis prevalence in Pakistan		Gunawan Setiaji Social network analysis for determining cattle and poultry movement pattern in Lampung, West Java and Central Java Provinces in Indonesia	Jenny-ann Toribio Veterinarian and horse owner contact and horse health information delivery in Australia	Gemma Chaters The effects of a Foot-and-Mouth Disease outbreak on the fertility performance of a large scale dairy herd in Kenya	
14.40-15.00	Georgina Limon Cross-sectional study of Crimean-Congo haemorrhagic fever seroprevalence in sheep and farmers in Bulgaria: understanding and preparing the ground for a vaccine efficacy study		Guillaume Fournié epidemix-An interactive multi-model application for teaching and visualizing infectious disease transmission					Chris Bartels A sero-survey of foot and mouth disease (FMD) in cattle around Mana Pools Conservation Park of northern Zimbabwe	

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)	Paitoon (Level 3, The Empress Hotel)
15.00-15.30	COFFEE BREAK / EXHIBITION (Level 2, Convention Centre) / POSTER VIEWING (Level 3, Convention Centre)								
15.30-16:30	Symposium 32.4 Health policy and capacity building	Symposium 25.3 Health policy and capacity building	Symposium 26.4 Special section: Our trend and future	Symposium 27.4 Epidemiologic principles and methods	Symposium 28.4 Health policy and capacity building	Symposium 29.4 1. Epidemiologic principles and methods 2. Health policy and capacity building	Symposium 30.4 Special section: Our trend and future	Symposium 31.4 1. Special section: Our trend and future 2. Health policy and capacity building	
Chairperson	Ian Dohoo	Cord Heuer	John Vanleeuwen	Theresa Bernardo	Theera Rukkwamsuk	Itsuro Yamane	Terdsak Yano	Barbara Wieland	
15.30-15.50	Sangay Rinchen A Qualitative risk assessment for re-introduction of rabies into rabies-free areas of Bhutan	M. Carolyn Gates Building the business case for bovine viral diarrhoea virus (BVD) eradication in New Zealand	Matteo Crotta Use of R Shiny Apps for technology-assisted teaching of probabilistic modelling in animal health and food safety	Umanga Gunasekera Modeling the spatiotemporal dynamics of food-and-mouth disease during mass vaccination programs in India	Tosapol Dejyong Integrating Economics into Field Epidemiology Training for Veterinarians: Thailand's experience	Nima Ghalekhani Social Network Analysis of Live Poultry Movements in The Province of Kerman, Southeast of Iran	Karin Orsel Quantifying risk factors to strategically plan control strategies for digital dermatitis in dairy cattle	Nelly Marquetoux Determinants of household-level FMD in endemic areas of Lao and Myanmar	
15.50-16.10	Jennifer Pradel Spatial risk analysis of Avian Influenza in the French West Indies and French Guiana	Chris Bartels Risk-based strategic plans for five priority diseases in the Palestinian Authority, integrated.	Flavie Goutard The set-up of an international One Health master program: the InterRisk program in Southeast Asia "Assessment and management of health risks at the human, animal and ecosystem interface"	Gerardo Acosta Spatial epidemiology of cystic echinococcosis in Aysén region, Chile.	Jasmeet Kaler Understanding farmer behaviour: role of personality, emotions, perceptions, rewards and sanctions	Dannele Peck Social-butterflies at the wildlife-livestock interface: disease-relevant variation in individual animal sociality	Gezahegn Alemeyehu Ayalew Risk factors for reproductive disorders and major infectious causes of abortion in sheep in the highlands of Ethiopia	Peter Durr SPREAD: A high-performance computing application for near-real time determination of the source of farm-to-farm transmission during foot-and-mouth disease epidemics	
16.10-16.30		Gaël Beaunée Insight from epidemiological and animal movement data on bovine paratuberculosis infectious dynamics at a regional scale		Rowland Kao Big Models for Big Data - exploiting the network of cattle movements in Great Britain to understand a complex multi-host pathogen system	Ryan Cristil Real Comparative Analysis of the Financial Viability of Swine and Poultry Farms Using Conventional and Tunnel Ventilation Technology in the Philippines	Gemma Chaters Livestock movement in northern Tanzania: exploiting routinely collected data to infer networks for infectious disease transmission and control		Katharina Stärk Transboundary animal disease control: preparedness and hurdles in Europe	
16:30-17:30	Poster session (Level 3, Convention Centre)								

Registration: 08.00-12.00

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)
8.30-9.20	**Keynote 5** (Grand Hall, Level 3, Convention Centre) *Prof. Dr. Katharina Stärk* "Assuring food safety in a globalised world – are we ready?" *Chaired by Saharuetai Jeamsripong*							
	Symposium 40.1 Epidemiologic principles and methods	**Symposium 33.1** Health policy and capacity building	**Symposium 34.1** One health (animal-human-environment interface)	**Symposium 35.1** Epidemiologic principles and methods	**Symposium 36.1** Epidemiologic principles and methods	**Symposium 37.1** One health (animal-human-environment interface)	**Symposium 38.1** Epidemiologic studies in specific species/topics	**Symposium 39.1** Health policy and capacity building
Chairperson	*Peter Thompson*	*Arjan Stegeman*	*Jeroen Dewulf*	*Pattrarat Chanchaithong*	*Navneet Dhand*	*Saharuetai Jeamsripong*	*Flavie Goutard*	*Sroisuda Chotimanukul*
9.30-9.50	*Muhammad Ijaz* Molecular epidemiology, associated risk factors, and phylogenetic analysis of anaplasmosis in camel population of Punjab Pakistan	*Katharina D.C. Stärk* Surveillance without intervention: Is there a value?	*Angus Cameron* Antimicrobial usage and resistance surveillance strategies for developing countries	*Gustavo Monti* Assessment of within-herd transmission of pathogenic Leptospira by a structured-age multi host model	*Taya Forde* Anthrax: a striking example of the impact of neglected zoonotic diseases	*Marianne Carson* Understanding poultry farmer outbreak behaviour in Vietnam through the combined use of behavioural games and semi-structured interviews	*Mohammad Hasan Rabiee* Prevalence and risk factors of avian influenza H9N2 among backyard birds in Iran	*Caroline Hodgkinson* Implementation of biosecurity on equestrian premises in Great Britain
9.50-10.10	*Amjad Khan* Molecular Epidemiology of a novel re-assorted epidemic strain of equine influenza virus in Pakistan in 2015-16	*Marion Bordier* An evaluation matrix for One Health surveillance systems - Application to the surveillance of antibiotic resistance in Vietnam.	*Barbara Wieland* Harmonisation of data collection on knowledge, attitude and practices of antimicrobial use in livestock production	*Lars Qviller* Evaluating the impact of zoning in Norwegian aquaculture on farmed salmon sea lice populations	*Taya Forde* Validation of a field-friendly capsule-staining technique for detecting Bacillus anthracis in animal samples	*Tu Tu Zaw Win* What influences livestock farmers and traders to adopt behaviours to reduce zoonotic disease transmission from livestock in Myanmar?	*Marius Gilbert* Avian influenza A (H5N1) outbreaks in different poultry farm types in Egypt: the effect of vaccination, closing status and farm size	*Caroline Hodgkinson* Attitudes towards equine biosecurity among horse owners in Great Britain
10.10-10.40	**COFFEE BREAK / EXHIBITION** (Level 2, Convention Centre) / **POSTER VIEWING** (Level 3, Convention Centre)							
	Symposium 40.2 Epidemiologic principles and methods	**Symposium 33.2** Health policy and capacity building	**Symposium 34.2** One health (animal-human-environment interface)	**Symposium 35.2** Epidemiologic principles and methods	**Symposium 36.2** Epidemiologic principles and methods	**Symposium 37.2** One health (animal-human-environment interface)	**Symposium 38.2** Epidemiologic studies in specific species/topics	**Symposium 39.2** Health policy and capacity building
Chairperson	*Peter Thompson*	*Arjan Stegeman*	*Jeroen Dewulf*	*Pattrarat Chanchaithong*	*Navneet Dhand*	*Saharuetai Jeamsripong*	*Flavie Goutard*	*Sroisuda Chotimanukul*
10:40-11:00	*Waqas Ahmad* Rabies virus degenerates neuronal cytoskeleton by down-regulating gene expression of GTPases and synapse related protein	*Alessandro Foddai* Quantitative evaluation of the Scottish and Welsh surveillance systems for bovine Brucellosis	*Katherine Worsley-tonks* Antimicrobial resistance in urban mesocarnivores	*Nicolas Rose* Comparison of transmission characteristics of a US non-InDel and a French InDel strain of porcine epidemic diarrhea virus (PEDV)	*Marius Gilbert* Changing geographic patterns and risk factors for avian influenza A(H7N9) infections in humans, China	*Shingo Asakura* Seroprevalence and risk factors for human brucellosis in agro-pastOral areas in Morogoro Region, Tanzania	*Svetlana Buzdugan* Towards real-time surveillance of broiler health and welfare: data mining of meat inspection records	*Merel Postma* Biocheck.UGent: A risk based tool to quantify the level of biosecurity
11:00-11:20	*Sabrina Greening* Social network analysis in the genomic era: untangling the complex relationship between host population contact structure and disease transmission dynamics	*Michael Ward* Companion animal infectious disease surveillance: how much is enough?	*Benjamin Hetman* Assessing the transmission dynamics of antimicrobial resistant Salmonella Heidelberg in Canadian poultry production using draft genome sequence data	*Esther Kukielka* Identification of high-risk areas of CSF in Peru using a network-based disease spread model	*Shumaila Arif* Evaluation of three serological tests for diagnosis of bovine brucellosis in Pakistan using Bayesian latent class analysis	*Krpasha Govindasamy* Zoonotic brucellosis at the cattle-human-farm interface: a Veterinary Public Health opportunity, Gauteng, 2016	*MM Hidayat* Characterization of commercial and non-commercial poultry systems in Purbalingga, Java, Indonesia	*Alfred Kompudu* Reducing Antibiotic Use in Layer Farms by Implementing 3-Zone Biosecurity
11:20-11:40	*Arata Hidano* Optimizing strategies for sampling pathogens in contact networks to make phylodynamic inferences	*Roger Morris* Achieving an optimal surveillance portfolio for zoonoses in West Africa - the Ebola Example	*Dishon Muloi* Characterisation of relatedness and antibiotic resistance patterns of Escherichia coli isolated from humans and livestock in Nairobi, Kenya, by whole genome sequencing	*Tu Tu Zaw Win* Epidemiological study to understand the perception and practice of local livestock farmers on Foot and Mouth Disease and Newcastle disease (ND) vaccination by using adapted Health Belief Modelling Approach	*Thanawat Tiensin* Transitions of prevention and control measures of HPAI virus in Thailand	*Shumaila Arif* Using participatory approaches to investigate the drivers, attitudes and communication networks for improving the management of zoonotic diseases among smallholder farmers in Pakistan	*Carien Van den Bergh* High seroprevalence and seroconversion rate to Rift Valley fever virus in an endemic area in the absence of outbreaks	*Mattias Delpont* The effect on knowledge, attitudes and personality traits on biosecurity compliance in French duck farms following a HPAI crisis

Time	Grand Hall (Level 3, Convention Centre)	Chiangmai 1 (Level 2, Convention Centre)	Chiangmai 2 (Level 2, Convention Centre)	Chiangmai 3 (Level 2, Convention Centre)	Chiangmai 4 (Level 2, Convention Centre)	Chiangmai 5 (Level 2, Convention Centre)	Pailin (Level 3, The Empress Hotel)	Paytai (Level 3, The Empress Hotel)
11:40-12:00	**Dikky Indrawan** Linking supply chain governance, biosecurity, and epidemiology in the context of HPAI control in Western Java: A value chain perspective	**Mark Bronsvoort** Association of Fasciola gigantica co-infection with bovine tuberculosis infection and diagnosis in a naturally infected cattle population in Africa		**Kajetan Stanski** Improving herd-level bovine tuberculosis breakdown predictions in GB cattle by applying machine learning methods	**Mohamed Sirdar Issa Adam** A novel method to perform antigenic vaccine matching for foot-and-mouth disease in absence of the homologous virus	**Taya Forde** Anthrax: a striking example of the impact of neglected zoonotic diseases		**Tabita Tan** A pilot study of the prevalence of Q fever in cattle, sheep and goats in Victoria, Australia
12.00-13.20	LUNCH (Level 1, Convention Centre)							
	Symposium 40.3 1. Epidemiologic principles and methods 2. Health policy and capacity building 3. Special section: Our trend and future	**Symposium 33.3** Special section: Our trend and future	**Symposium 34.3** One health (animal-human-environment interface)	**Symposium 35.3** Epidemiologic principles and methods	**Symposium 36.3** Epidemiologic principles and methods	**Symposium 37.3** One health (animal-human-environment interface)	**Symposium 38.3** 1. Health policy and capacity building 2. Special section: Our trend and future	**Symposium 39.3** 1. Epidemiologic studies in specific species/topics 2. Special section: Our trend and future
Chairperson	**John Vanleeuwen**	**Pattrarat Chanchaithong**	**Sroisuda Chotimanukul**	**Barbara Wieland**	**Theera Rukkwamsuk**	**Kohei Makita**	**Tim Carpenter**	**Therasa Bernardo**
13.20-13.40	**Liliana Salvador** Understanding the emergence and evolution of Mycobacterium bovis in Michigan, USA	**Nicola Ferre'** Implementation of a spatial data warehouse for avian influenza response	**Dishon Muloi** Urban Wildlife and the Epidemiology of Antimicrobial Resistance in Nairobi	**Jude Eze** Detection of BVD herd management changes using model-based clustering of BVD antibody dynamics	**Ibrahim Elsohaby** Diagnostic performance of direct and indirect methods for assessing failure of transfer of passive immunity in dairy calves using latent class analysis	**Jason Stull** Clostridium difficile on Ohio (USA) swine farms: A comparison of swine and human environments and assessment of on-farm risk factors	**Carola Sauter-Louis** Landscape and vegetation data on different scales and the number of wild boar abundance	**Hélène Guis** Modelling temporal dynamics of culicoides populations on Reunion Island (Indian Ocean) vectors of viruses of veterinary importance
13.40-14.00	**Arash Ghalyanchilangeroudi** Molecular Epidemiology of New-castle Disease, Avian Infectious Bronchitis and Avian Influenza (H9N2) in Iran, 2017: An Update and Comprehensive Data	**Suman Das Gupta** Farm management and environmental village level factors influencing avian influenza circulation on backyard and commercial chicken farms in Bangladesh	**Liza Rosenbaum Nielsen** Application of a new One Health evaluation framework to two research initiatives addressing antimicrobial resistance and obesity	**Peter Durr** How to release Cyprinid herpesvirus 3 (CyHV-3) to control invasive common carp (Cyprinus carpio) in southeast Australia – a Big Data integration approach	**Christine Jost** Sensitivity and specificity of clinical diagnoses for HPAI and ND in chickens in West and Central Java	**Hazumu Kadowaki** Analysis of socio-economic factors associated with voluntary rabies control measures in Vietnam	**Maurice Karani** Seroepidemiological survey for acute Q fever antibodies and risk factors among patients with febrile conSero - epidemiological survey for acute Q fever antibodies and risk factors among patients with febrile condition in two hospitals in Busia Countydition in two hospitals in Busia County	**Yvette Johnson-Walker** Epidemiology and Economic Impact of Anaplasmosis in Southern Illinois Beef Cattle
14.00-14.20	**Taya Forde** Investigating potential cases of vaccine failure against Erysipelothrix rhusiopathiae in swine in the UK through comparative genomics	**Arjan Stegeman** Density of wild birds is associated with risk of highly pathogenic avian influenza virus (H5N8) introduction into poultry farms	**Pamela Woods** Fecal E. coli AMR increases in mixed beef-poultry operations	**Yoko Hayama** Simulation-based decision support tool for planning control strategies of Classical Swine Fever in Japan	**Didi Janse Van Rensburg** Validation of an indirect immunoperoxidase test for rabies virus in domestic and wildlife species in South Africa	**Marta Hernandez-Jover** Modelling the probability of introduction and establishment of Salmonella subtypes of biosecurity concern in Australia through beef imports	**Michael Ward** Developing sensible and sensitive policy: rabies response in northern Australian Indigenous communities	**Peter Thompson** Estimating force of infection of Rift Valley fever virus in an endemic area of South Africa using reversible catalytic models
14.20-14.40		**Timothée Vergne** Optimising the surveillance of avian influenza viruses in live-bird markets	**Raymond Hamoonga** A Review of Veterinary Practices and Antimicrobial Resistance (AMR) in Zambia		**Juan Carlos Arango Sabogal** Sensitivity and specificity of fecal culture in liquid medium to detect paratuberculosis infections in Québec dairy herds, using a hierarchical Bayesian latent class model	**Gerardo Acosta** Risk factors of human cystic echinococcosis in urban areas of Aysén region in Chile	**Tabita Tan** A pilot study of the prevalence of Q fever in cattle, sheep and goats in Victoria, Australia	**Yvette Johnson-Walker** Epidemiology and Economic Impact of Anaplasmosis in Southern Illinois Beef Cattle
14.40-15.00		**Hung Nguyen-Viet** Bioaerosol Sampling to Detect Avian Influenza Virus in Hanoi's Largest Live Poultry Market	**Jeroen Dewulf** A European cross-sectional study identified positive associations between antimicrobial usage and resistance in broiler farms		**Mohamed Sirdar Issa Adam** A novel method to perform antigenic vaccine matching for foot-and-mouth disease in absence of the homologous virus	**Navneet Dhand** Brucellosis exposure among animal health workers in India: Risk factors and identification of hotspots for bovine brucellosis		
15.00-15.30	Farewell Coffee							

Oral presentations from (PhD or master) students are eligible for the ISVEE public award for best oral presentations (2 winners).

• The best oral presentations of students will be selected by the public by means of a ballot voting system during the conference. If you are witnessing a very good oral presentation by a student give him or her your vote at a ballot box at the reception (level 1, the Convention center).
• You can only vote once for a specific poster presentation.
• To vote, you will get a paper ballot and you vote by writing *"presenter's name" (e.g. Philip Hudson.) "presentation title" (e.g; Modelling control measures of FMD).*
• We will count all votes on Friday afternoon.
• The 2 winners will be announced at the conference on Friday afternoon.

Poster presentation from (PhD or master) students are eligible for the ISVEE public award for best poster presentations (5 winners).

• All posters from (PhD or master) students see mark above the poster) are eligible for the ISVEE public award for best poster award (five winners).
• During the conference all posters of students will be evaluated and scored by all participants.
• You can only vote once for a specific oral presentation.
• To vote, you will get a paper ballot and you vote by writing "presenter's name" (e.g. Philip Hudson.) "presentation title" (e.g; Modelling control measures of FMD).
• The 5 winners will be announced at the conference on Friday afternoon.

We are proud to announce that a total of 15 bursary awards have been awarded To students and participants from developing countries to participate in ISVEE15, Chiangmai, Thailand.

The ISVEE 15 bursary awards have been supported by:
 - Dutch Society for Veterinary Epidemiology and Economics
 - Prof. Mo Salman
 - Laemthong Corporation Group
 - BioMérieux
 - The Thai Veterinary Medical Association under Royal Patronage and ISVEE15
 - Food and Agriculture Organization (FAO) of the United Nations

THE FOLLOWING PERSONS RECEIVED A BURSARY:

TITLE	FULL NAME	COUNTRY
Dr.	Dishon Mutemwa Muloi	Kenya
Dr.	Haini Pao	Taiwan
Dr.	Joaquin Baruch	Uruguay
Dr.	Karla Irazema Moreno Torres	Mexico
Dr.	KSHITIZ SHRESTHA	Nepal
Ms.	Madeleine Harriet Alice Clark	Kenya
Dr.	María Natalia Aznar	Argentina
Dr.	Maurice Karani Murungi	Kenya
Dr.	Md Shamim Sarkar	Bangladesh
Dr.	Naree Ketusing	Thailand
Dr.	Renu Gupta	India
Dr.	Sandeep Kumar	India
Dr.	Seyyed Jamal Emami	Iran
Dr.	Vijay Raika Monga	Bhutan
Dr.	WAQAS AHMAD	Pakistan

Programme ILRI Special session: Healthy food in informal markets – hazards, risks, trade-offs and synergies

Date&Time: Tuesday, 13 November 2018, Chiang Mai, Thailand (09:30 – 12:00)
Venue: Chiangmai 1, Level 2, The Empress Convention Center

Chairperson: Kohei Makita

Programme

TIME	TOPIC	PRESENTERS
9:30 – 10:10	**Key note: Food safety in informal markets: what works and why.**	**Delia Grace**
10:10 – 10:40	**Coffee Break/Exhibition/Poster viewing**	
10:40 – 11:00	**Pathways towards safer pork in Vietnam**	**Fred Unger**
11:00 – 11:20	**Is my milk safe? Characterizing the quality and safety of the milk consumed in low-income households in Nairobi**	**Silvia Alonso**
11:20 – 11:40	**Aflatoxins in the dairy value chain- a challenge for the informal markets?**	**Johanna Lindahl**
11:40 – 12:00	**Research and training partnership to assist food safety in Vietnam and Cambodia**	**Hung Nguyen**

Programme Special session: African Swine Fever
Date&Time: Tuesday, 13 November 2018, Chiang Mai, Thailand (09:30 – 16:30)
Venue: Grand Hall, Level 3, The Empress Convention Center

Objectives:
The objectives of this session are:
1. to provide an overview of the current ASF situation and future trajectory in Far-East Asia - by examining the key drivers and pathways for the emergence and spread of ASFV in China and beyond;
2. to identify the most important knowledge gaps and map the research; and
3.to review and discuss the coordination of research, including risk analysis and vaccines.

Tentative resource persons:
• Dr. François Roger, CIRAD
• Prof. Dirk Pfeiffer, City University of Hong Kong
• Dr. Flavie Goutard, CIRAD, Regional Research Network in SE Asia
• Dr Wantanee Kalpravidh, FAO RAP
• Dr Junxia Song, FAO RAP
• Dr Aurelie Brioudes, FAO RAP

Programme

TIME	TOPIC	PRESENTERS
9:30 – 9:40	General introduction	FAO & OIE
	Session 1 – Disease situation	
9:40 -10:00	China: Overview of the current situation	Wang Youming (CAHEC, China)
10:00 – 10:15	Spatial analysis of ASF outbreaks in China	Yu Qi (FAO China)
10:15 – 10:30	The economics of ASF	Damian Tago (FAO RAP)
10:30 – 10:45	Pig-related food systems in China and SE Asia	John Edwards (AUSVET)
10:45 – 11:00	**Coffee break**	

Session 2 – Current ASF Research Framework and Coordination		
11:00 – 11:20	International coordination for research: how to move on?	Cyril Gay (GARA, USDA, USA)
11:20 – 11:40	Southern Africa and Indian Ocean: research activities and future NIH regional project	Eric Etter (CIRAD, France) & Beatriz Martinez (UC Davis, USA)
11:40-12:00	Integrating research on ASF to inform design of targeted surveillance and control in east Africa	Edward Okoth (ILRI, Kenya-Ethiopia)
12:00-12:20	Europe: lessons learnt	Carola Sauter (FLI, Germany), Timothée Vergne (ENVT, France)
12:20 – 13:30	**Lunch**	
13:30 – 13:50	Lab and field data needs for computing epi parameters, R0	Claire Guinat (ENVT, France)
13:50 – 14:30	Vaccine research: state of play	Linda Dixon (IAH, UK)
14:30 - 14:45	Risk studies in Asia (1): preliminary outputs of dynamic and spatial modelling work	Lisa Kohnle (CY HK)
14:45 – 15:00	Risk studies in Asia (2): risk assessment framework	
15:00 – 15:30	**Coffee break**	
Session 3 - Development of Research Map and Coordination Framework		
15:30 – 16:30	Development of Research Map and Coordination Framework	
	Facilitated workshop/Expert opinion workshop	

Programme FAO Special session: Changing disease landscapes in the Asia Pacific region: beyond risk factor epidemiology
Date&Time: Wednesday, 14 November 2018, Chiang Mai, Thailand (09:30 – 12:00)
Venue: Grand Hall, Level 3, The Empress Convention Center

Typical contents. Examples presented and discussed during the special session would include the increasing application of value chain studies to understand trade flows of animal and animal products within countries or across country borders in Asia, the development of demographic and urbanization projections quantifying change in demand patterns, the presentation of projections on societal and environmental changes that will take place in different parts of Asia, in a context of changing disease landscapes.

Moderators / organizers of the session: Peter Black, Marius Gilbert, Ian Dacre and Wantanee Kalpravidh

Programme

Part I: moderator: Peter Black

9:30 - 9:50   Timothy Robinson (FAO Rome): "Shaping the future of livestock: Issues around sustainability".
9:50 - 10:10   Thomas Van Boeckel (ETH Zurich- Swiss Federal Institute of Technology): Mapping antimicrobial resistance in animals in low- and middle-income countries.

10:10 - 10:40   Coffee break

Part II: moderator: Ian Dacre

10:40 - 11:00   Dominic Smith (University of Queensland): Modelling livestock production in Southeast Asia
11:00 - 11:20   Guillaume Fournié (Royal Veterinary College): Live bird marketing: from infrastructural to structural interventions
11:20 - 11:40   Marius Gilbert & Madhur Dhingra (Université Libre de Bruxelles & FAO RAP): Changing demographic and environmental factors and the emergence of highly pathogenic avian influenza
11:40 - 12:00   Dan Schar (United States Agency for International Development (USAID) & Tom Hughes (Ecohealth): Economic modeling of emerging infectious diseases associated with land use change

Programme OIE Special session

Time	Title of Paper	Family Name	First Name
9:30-9:50	Prioritising risk factors for FMD incursions in South-East Asian countries using multi-criteria decision analysis	Stevenson	Mark
9:50-10:00	Epidemiological investigations on recent FMD Outbreaks in Lao PDR	Sutar	Ashis
10:00-10:10	New features of the OIE WAHIS+	Abila	Ronello
10:10- 10:40	Tea Break		
10:40-11:00	Risk assessment of transboundary spread of FMD in Southeast Asia and China through livestock movements	Qiu	Yu
11:00-11:20	Think local, act national: status and perspectives of spatial FMD risk assessment in Lao P.D.R.	Vink	Daan
11:20-11:35	Can FMD be controlled by partial risk based vaccination	Heuer	Cord
11:35- 12:00	Causes and consequences of FMD in Laos and Myanmar	Marquetoux Wada	Nelly Masako

MONDAY, 12 NOVEMBER 2018			
Abstract No.	Poster Board No.	Title	Name
Session A: Epidemiology studies in specific species/topics			
7	A01	Prevalence & Therapeutic Studies on Diabetes Mellitus in Cats in & Around Lahore	Jawaria Khan
12	A02	Longitudinal study of selected viral diseases in government and village backyard pig farms in Bhutan	Vijay Monger
33	A03	*Culicoides*-borne diseases in the Indian Ocean: Examples of Bluetongue and Epizootic Hemorrhagic Disease fever viruses in Reunion Island	Catherine Cetre Sossah
61	A04	A genomic map for bovine tuberculosis susceptibility in Bos indicus breeds	Rebecca Callaby
66	A05	Strong associations of 9-point body condition scoring with survival and lifespan in cats	Kendy Tzu-Yun Teng
67	A06	Seroprevalence of Rift valley fever virus in livestock, wildlife nd humans from 1968 to 2016: a systematic review	Madeleine Clark
71	A07	Study of important infectious agents in out-migrating Fraser River Sockeye salmon	Omid Nekouei
75	A08	Investigation of Foot and mouth disease outbreak in cattle in Yinmarbin Township, Sagaing region, Myanmar during December 2016 - February 2017	Khin Padamyar
85	A09	The case for and against vertical transmission of Piscine Myocarditis virus (PMCV) in Atlantic salmon	Britt Bang Jensen
88	A10	Broiler chicken welfare: what is the status in large-scale Kenyan farms?	Joshua Onono
111	A11	Outbreak investigation: Identification of risk factors associated with seropositivity to goat brucellosis in Singburi province – Thailand during December 2016 - February 2017	Nattanan Thuamsuwan
117	A12	Risk factors for early return to service in breeding pig herds	Ryosuke Iida
118	A13	An outbreak of classical swine fever in pigs in Bangladesh, 2015	Md Shamim Sarkar
119	A14	A regional outbreak of winter dysentery; effect on herd level milk production	Ingrid Toftaker
129	A15	Impact of sociocultural factors and farmers' behavior on the prevalence of brucellosis in Sri Lanka	Hiroichi Kono
130	A16	Efficacy of diazinon ear tag in blood-sucking flies control and influence on weight gain in beef cattle	Pipat Arunvipas
137	A17	PIG DATA: Health analytics for Swiss pig farming	Heiko Nathues
151	A18	The relationship between non-nutritional factors and milk citric acid concentrations in dairy cows in western, Thailand.	Pipat Arunvipas
160	A19	Bayesian statistical methodologies and experimental designs to aid investigating apparent lack of anthelmintic efficacy in cattle herds.	Johnathan Love
161	A20	Canine leptospirosis in the United States (2009-2016): use of PCR testing to unravel complex spatial, tempOral, human- and animal-level risk factors	Amanda Smith
196	A21	Bovine hydatid disease in Australia: risk factors and spatio-temporal clustering	Cara Wilson
197	A22	Risk factors during smoltification at fresh water sites associated with High Risk Diseases (HRD) during marine phase in Coho salmon	Gustavo Monti

202	A23	Transection as faster means to release the suspensory ligament during canine ovariohysterectomy	Kimberly Woodruff
218	A24	Evaluation of efficiency of environmental sampling in the national surveillance for Mycobacterium avium subspecies paratuberculosis in Japan	Takehisa Yamamoto
247	A25	Evaluation of economic losses due to paratuberculosis in a bovine dairy herd in Northern Italy, 2012-2016.	Anna Procopio
254	A26	Characterization of small dairy farmers in Central Chile: general aspects, organizational structures and farmers expectations.	Luis Pablo Hervé-Claude
280	A27	Scoping review of the literature and meta-analysis of risk factors for bovine respiratory disease in beef cattle	Joaquin Baruch
301	A28	Assessment of the potential of mid-season targeted selective anthelmintic treatment based on flexible gain threshold for gastrointestinal nematode infection control	Aurélie Merlin
376	A29	Using R-Shiny package to visualize laying hen movement patterns	Filipe Maximiano Sousa
554	A30	Seroprevalence of Verocytotoxigenic *Escherichia coli* (VTEC) Serotypes in Poultry Farms in Abuja, Nigeria	Simon Enem
657	A31	Similar development of cecal microbiota diversity within four broiler houses at two different farms	Arjan Stegeman
667	A32	Spatial distribution of Leptospira serovars in horse populations in Latin America: estimation of animal serovar prevalence and associated risk factors	Gustavo Machado
433	A33	Productivity and economic benefits of improving farm management and biosecurity on smallholder broiler farms in Indonesia	Imas Yuyun
		Session B: Epidemiologic principles and methods	
58	B01	Modelling the spread of Japanese Encephalitis virus in swine farms in Cambodia: Exploring for control strategies and cost-effectiveness.	Alpha Oumar Diallo
102	B02	Differentiated development of contact network - is the spread potential of the future deviated among pig and cattle production sectors in Finland?	Tapani Lyytikäinen
132	B03	Cross-contamination and recontamination during a household barbecue: estimation of the consumer exposure to methicillin-resistant Staphylococcus aureus.	Carolina Plaza Rodriguez
162	B04	A spatial temporal epidemiological model of sheep scab in Great Britain	Emily Nixon
172	B05	Investigating the epidemiology of EI epidemic spread in the Province of Khyber Pakhtunkhwa, Pakistan in 2015-16	Amjad Khan
174	B06	Managing big data on a PC: modeling body weight and age of over 13 million cats	Adam Campigotto
222	B07	Are movements epidemiologically important in the transmission of bovine tuberculosis in Castilla y Leon, Spain?	Pilar Pozo
252	B08	Integrated periodic and reactive vaccination strategies can be more effective in the prevention of Rift Valley fever epidemics than either of the two approaches – a modelling study	John Gachohi
256	B09	Estimating the introduction time window of highly pathogenic avian influenza virus into poultry flocks	Peter Hobbelen
273	B10	Surveillance of Porcine Reproductive and Respiratory Syndrome (PRRS) virus strains – new tools for practicing veterinarians in support to control initiatives	Sylvie Dallaire

283	B11	Mathematical modelling and economic analysis of controls strategies for brucellosis and bovine tuberculosis.	Daniel Lima
596	B12	Chemical clarification of Oral fluids does not affect PRRSV IgG ELISA	Yuly Alexandra Henao Díaz
941	B13	Identification of spatial clustering in Uruguayan farms from a reproductive disease survey	Cybthia Moreira
		Session C: Health policy and capacity building	
0	C01	Sanitary status against Bovine viral diarrhea and infectious Bovine Rhinotracheitis and Biosecurity measures applied in dairy farms in Catalonia and Galicia	Bibiana Benavides
34	C02	The history of in vivo tuberculin testing in bovines: tuberculosis a "One Health" concern	Margaret Good
52	C03	Comparison of alternative meat inspection regimes for outdoor-raised finishing pigs – considering the cost of error	Lis Alban
68	C04	Assessment of the shrimp disease management behaviors of Vietnamese farmers using Vietnamese Good Aquacultural Practices	Thi Minh Huong Nguyen
72	C05	The impact of farmers' attitudes and behaviours for the success of a high biosecurity compartmentalisation scheme in Taiwan's broiler industry	Haini Pao
97	C06	Short-term socioeconomic impacts due to Foot and mouth disease in a dairy farm in West Azerbaijan province of Iran in 2018	Javad Emami
101	C07	Animal disease surveillance system: can it be optimised with contact rate?	Tapani Lyytikäinen
103	C08	Surveillance system of contagious animal diseases of cattle in Finland – effects of inclusion by farm size and low renewal rate in years 2014-2015	Tapani Lyytikäinen
105	C09	Understanding the importance of record keeping to assess profitability and enhance financial literacy of selected smallholder pig raisers in San Simon, Pampanga, Philippines	TESSA LYRENE LANTICAN
121	C10	Willingness to pay for preparatory on-farm disposal capacity for commercial poultry farms	Jada Thompson
190	C11	The farmer factor: a qualitative investigation of farmer disease response behaviour and its implications for passive surveillance	Caitlin Pfeiffer
194	C12	Gaps in the paraveterinary systems: case study from Cambodia	Isabel Macphillamy
200	C13	Risk communication methodology for bovine leukemia virus infection	Satoko Kubota
205	C14	The contribution of veterinarians in preventing and managing disease among smallholder livestock producers in Australia	Lynne Hayes
206	C15	Combining ensemble modelling and social relationships for sustainable rural poultry surveillance in developing countries	Bruce Gummow
214	C16	Can change in animal behavior patterns be used for animal health surveillance?	John Berezowski
217	C17	Economic losses due to hybrid heavy hens diseases and their impact on egg production economics	Marina Pavlak
229	C18	What is One Health surveillance?	Simon Rüegg
237	C19	African swine fever still on the move – epidemiological evaluation of control measures in Latvian wild boar	Katja Schulz
238	C20	"It's a real job, putting food on plates": a qualitative study of retention of UK farm animal veterinarians	Katherine Adam

243	C21	A 12-step aquatic animal health surveillance guideline to build and evaluate surveillance competencies	Sabina Seric-Haracic
245	C22	One Health challenges: Highly pathogenic avian influenza outbreak response	Lesley Van Helden
271	C23	An observatory of gastrointestinal and pulmonary parasites in grazing livestock, as a tool to empower farmers and allow adaptation to a climate changing world	Luis Pablo Hervé-Claude
296	C24	Development of a local risk map for African swine fever in Germany	Carola Sauter-Louis
302	C25	Bovine-Herpesvirus 1 - Infection in cattle in North Rhine-Westphalia, Germany, during several phases of a control programme	Carola Sauter-Louis
307	C26	Poultry backyard production farming in Chile: contribution to food security in a high-middle income country threatened by animal diseases	Christopher Hamilton-West
343	C27	Assessing the risk of countryside access during an outbreak of Foot-and-mouth disease	Harriet Auty
357	C28	Factors associated with improved uptake of Johnes Disease control activities on Australian dairy farms: Regulatory insights from evolving control strategies.	Paul Burden
370	C29	Performance of Aquatic Animal Health Services (AAHS) - world organisation for animal health (OIE)	Ana Afonso
403	C30	Semi-commercial modes of operation among village chicken producers may favor the release of HPAI-H5N1 to Indonesian villages	Juan Pablo Villanueva Cabezas
518	C31	A GIS framework for evaluation of spatial factors that affect the quarantine station selection	Nicola Ferre'
688	C32	Establishing a serum bank of confirmed cysticercosis positive and negative samples	Maurice Karani
Session D: One health (animal-human-environment interface)			
0	D01	Epidemiology of ophidian accidents in southern Columbia	Bibiana Benavides
0	D02	Dog overpopulation and diagnosis of intestinal parasites on Santa Cruz Island, Galapagos	Jorge A. Hernandez
32	D03	The monitoring of beta-agonist residue in cattle of Chiang Mai municipal slaughter house during June – August 2017	Pongpon Homkong
53	D04	Modernizing the antimicrobial residue monitoring programs for pig meat – the balance between flexibility and harmonization	Lis Alban
81	D05	Complexity of factors influencing the success of on-farm biosecurity and animal disease prevention and control	Haini Pao
120	D06	Situation analysis of rabies control policy in Thailand; towards achievement of disease elimination	Thanidtha Te-chaniyom
154	D07	Prevalence and antimicrobial resistance (AMR) profile of non-typhoidal Salmonella (NTS) in pigs in Kenya and Malawi	Catherine Wilson
169	D08	The role of rabies preparedness cadres (Kasira) on rabies control program in Indonesia: a community-based approach	Etih Sudarnika
183	D09	Macrolides, probiotics, and the pen environment: effects on Enterococcus faecium diversity and antimicrobial resistance in U.S. feeder cattle	Sarah Murray
198	D10	Temporal patterns and predictors of antimicrobial resistance of canine Staphylococcus isolated from a diagnostic laboratory in Kentucky, USA	Agricola Odoi
221	D11	Developing rapid diagnostics for use in livestock to combat antimicrobial resistance: an innovation systems approach	Katherine Adam

244	D12	Antimicrobial resistance of mastitis agents in dairy farms in Bosnia and Herzegovina: a base line study	Sabina Seric-Haracic
258	D13	The red fox as sentinels for the occurrence of antimicrobial resistance in the environment	Madelaine Norström
270	D14	Evaluation of the live monitoring programme for radioactive 137Cs in Norwegian sheep	Malin E Jonsson
281	D15	Seasonal Shiga toxin-producing Escherichia coli (STEC) prevalence and concentration on hides and feces of cull dairy cattle at commercial processing plants in the United States	Joaquin Baruch
350	D16	Production animal antimicrobial use in New Zealand	Skye Fruean
385	D17	Expert opinion on livestock antimicrobial usage indications and patterns in Denmark, Portugal and Switzerland	Luís Pedro Carmo
424	D18	A risk profiling approach to investigate food safety risks within the red meat industry in Australia	Marta Hernandez-Jover
432	D19	Participatory planning for community-based control of bovine brucellosis in Tanzania	Kohei Makita
463	D20	Development of a national collaborative Veterinary Antimicrobial Stewardship Online Program	Jane Heller
Session E: Special section: our trend and future			
8	E01	An investigation of Foot-and-mouth disease outbreak in Siem Reap province, Cambodia from December 2016 to February 2017	Lin Sileap
57	E02	The overview of epidemiology education in Iran	Vahid Rahmanian
96	E03	Knowledge, attitude and practice of Dealers regard to Foot and Mouth Disease (FMD) in North West and center of Iran in 2017	Javad Emami
98	E04	Using geospatial methods to measure the risk of environmental persistence of avian influenza in South Carolina	Chloe Stenkamp-strahm
127	E05	Assessment of veterinary communication on dairy farms	Caroline Ritter
195	E06	The Activities of the Japan Society of Veterinary Epidemiology	Itsuro Yamane
267	E07	Interhemispheric gene flow of influenza virus among wild birds in Chile	Christopher Hamilton-West
268	E08	Evaluation of intervention strategies to prevent the transmission of influenza viruses from wild birds to domestic poultry in Backyard Production Systems in Chile.	Christopher Hamilton-West
311	E09	What are the long-term future challenges and opportunities for animal health surveillance?	Lisa Boden
390	E10	Using secondary data to model livestock truck-borne fomite disease transfer potential	David South
395	E11	Spatial risk-based prioritisation of FMD control zones in southern Lao PDR	Willem Vink
413	E12	Matched case-control study of the influence of inland waters surrounding poultry farms on avian influenza outbreaks: 2004–2017 in Japan	Yumiko Shimizu

Abstract No.	Poster Board No.	Title	Name
TUESDAY, 13 NOVEMBER 2018			
Session A: Epidemiology studies in specific species/topics			
17	A01	A case-control study of an outbreak of newcastle disease in poultry at the farm level in Pemagatshel district, eastern Bhutan	Lungten Lungten
22	A02	Post-Operation wound healing complication and associated factors under dog and cat population control of Chiang Mai Municipality in 2017	Pirun Chutipong-vivate
24	A03	Risk factors associated with the seroprevalence of leptospirosis amongst at risk groups in Tanga city, Tanzania	Emanuel Swai
27	A04	Prevalence and factors associated with echinococcosis/ taenid eggs presence in dogs in Ibadan, Oyo state, Nigeria	Emmanuel Awosanya
41	A05	What do we know about the antimicrobial resistance of bacteria isolated from dogs with otitis in France?	Clémence Boireau
50	A06	Avian influenza outbreak and prevalence in live bird market, Quangninh province, Vietnam from 2015 to 2017	Tran Duc Trong
220	A07	Long-term effect of subclinical Bacterial Kidney Disease (BKD) on performance of farmed Atlantic Salmon (*Salmo salar* L.): a 2-stage hierarchical interrupted time-series (ITS) approach	Annette Boerlage
262	A08	Evaluating sensitivity of surveillance strategies for the detection of proliferative gill disease (PGD) in Atlantic salmon in Scotland	Annette Boerlage
284	A09	How do winter housing and management factors impact Norwegian sheep health and production?	Clare Phythian
293	A10	Temporal and spatio-temporal patterns of Caligidosis and Piscirickettsiosis co-occurrence in salmon farms in Chile	Gabriel Arriagada
299	A11	Epidemiological investigations into infectious hematopoietic necrosis in South Germany	Carola Sauter-Louis
300	A12	First report of the sea louse Caligus rogercresseyi found in farmed Atlantic salmon in the Magallanes region (south 49°16' S), Chile	Gabriel Arriagada
305	A13	Factors associated with the movement of cows and replacement heifers in dairy herds in France: implications for disease surveillance	Pierre Villard
320	A14	A multi-site randomized field trial to evaluate the effect of lactoferrin on the health of dairy calves with diarrhea	Greg Habing
322	A15	Evaluation of risk due to sea lice infestation in wild juvenile Pacific salmon populations	Thitiwan Patanasa-tienkul
328	A16	Factors affecting an occurrence of a hypo-prolific sow in Brazilian breeding swine herds	Nitipong Hom-wong
330	A17	Using multiple correspondence analysis (MCA) to identify risk and protective factors for on farm mortality in a sample of sow herds in Finland	Paula Susanna Bergman
332	A18	Development of a clinical scoring system for bovine respiratory disease (BRD) in postweaned dairy calves	Gabriele Maier
336	A19	Effects of feeding a novel amino acid-complexed trace mineral supplement on productivity and digital dermatitis mitigation in growing-finishing feedlot heifers	Marlène Tremblay
338	A20	Identifying poor metabolic adaptation to negative energy balance during early lactation in dairy cows using cluster analysis	Marlène Tremblay

352	A21	East Coast Fever control at the livestock / wildlife interface in Northern Tanzania	Fiona Allan
353	A22	A welfare assurance programme for dairy calves in New Zealand	Skye Fruean
355	A23	Tail damage of dairy cattle in New Zealand	Skye Fruean
358	A24	Puppy acquisition behaviour – preliminary data from the 'Generation Pup' birth cohort	Jane Murray
388	A25	How many ways to spay? Improving student confidence and competence in performing desexing surgeries at the time of graduation	M. Carolyn Gates
391	A26	Clostridium difficile in dogs: risk factors for colonization and infection	Jason Stull
405	A27	Causal effect of milking practices to sub-clinical mastitis in Mbarara dairy farms, Uganda	Takeshi Miyama
442	A28	Analysis of the effect of feedback feeding on farm-level porcine epidemic diarrhea occurred in Kagoshima and Miyazaki Prefectures in Japan	Taiki Yamagami
459	A29	Critical elements of a successful disease control programme: the case of Bovine Johne's Disease	Ashley Jordan
469	A30	Association between temporal patterns in continuously monitored reticuloruminal pH data and production characteristics in dairy cows	Matthew Denwood
482	A31	Cat management and residents' attitude of cat by-laws in local councils in Adelaide, South Australia	Torben Nielsen
489	A32	A cohort study on the milk production loss associated with bovine leukemia virus infection in dairy production in Hokkaido, Japan	Satoshi Nakada
500	A33	Individual-based infectious disease modelling for Bovine leukemia virus infection in a dairy farm in Hokkaido, Japan.	Yuri Fujimoto
594	A34	Collared peccary (pecari tajacu) are susceptible to porcine reproductive and respiratory syndrome virus (PRRSV)	Yuly Alexandra Henao Díaz
633	A35	An intervention study to investigate the impact of raised hygiene in the perinatal period on mastitis and health in housed ewes	Louise Whatford
703	A36	Seroprevalence and risk factors associated to horse and wild bird infection by West Nile virus in Madagascar	Helene Guis
716	A37	Evaluation of the economic impact of coccidiosis and necrotic enteritis using an integrated biological-economic model of host-pathogen interaction.	William Gilbert
1003	A38	Genetic and epidemiological characteristics of Sarcocystis spp. in sika deer (Cervus nippon) in Japan	Tatsuya Hiroshima
Session B: Epidemiologic principles and methods			
38	B01	Evolutionary characteristics of equine influenza virus identified from 2011 to 2017 in the US by Bayesian phylodynamic analysis of the hemagglutinin gene	Kyuyoung Lee
193	B02	Health informatics: a scoping review of the veterinary and animal health literature	Ben Ouyang
294	B03	A daily Monte-Carlo dairy simulation model with multi-trait genetics that quantifies the reduction in herd mastitis incidence rate and ensuing herd performance achievable through genomic selection	Karun Kaniyamattam
297	B04	The location of the index case is essential to mobilize sufficient resources for active surveillance in case of emergence of ASF in France.	Mathieu Andraud

303	B05	Different control options for Foot-and-mouth disease in a highly densely livestock populated area in Germany	Carola Sauter-Louis
314	B06	Improving classical swine fever control strategy using mathematical modeling in Ecuador	Alfredo Acosta
317	B07	Simulation of herd sensitivity and specificity values of a diagnostic test for bovine tuberculosis using a composite reference standard as the comparison standard	Krishna Thakur
345	B08	Environmental transmission and management of Mycobacterium avium ssp. paratuberculosis: an individual based modeling approach.	Kristina Ceres
356	B09	Waste milk movements from dairy farms	Skye Fruean
409	B10	Contact structure of cattle farms in southern Chile	Oscar Alocilla
472	B11	Role of duck contact networks in shaping disease transmission during the 2016-2017 epidemic of H5N8 avian influenza	Claire Guinat
485	B12	Modelling risk factors associated with developing clinical cardiomyopathy syndrome in salmon farms	Arthur Mårtensson
791	B13	Molecular Epidemiology of the Two Internal Genes of Equine Influenza H3N8 Virus Isolated in Pakistan 2015-16	Amjad Khan
821	B14	Transmission is mainly indirect: modification of the SIR model for statistical analysis.	M.C.M. De Jong
Session C: Health policy and capacity building			
21	C01	Two approaches for assessing the coverage of vaccination against rabies and anthrax and assessing effectiveness of the campaigns in Georgia	Lasha Avaliani
251	C02	Comparing apples with apples: a simplified method for assessing animal health surveillance intensity at the regional level	Ping Hu
285	C03	Foot and Mouth Disease (FMD) survey of newly graduated veterinarians and their opinion towards vaccination.	Joaquin Baruch
290	C04	Factors influencing the competitiveness of smallholder pig farmers in the Northern Cape province of South Africa	Nelson Matekwe
292	C05	Assessment of the value of PCR assays in oral fluid Samples for detection of African swine fever, Classical swine fever, and Foot-and-mouth disease in swine	Oriana Beemer
335	C06	Buzz in the Pits: Production Events and Herding Behavior in Livestock Future Markets	Jada Thompson
364	C07	Does rapid response to the risk of tail biting in fattening pigs pay?	Jarkko Niemi
398	C08	Giving weight to non-economic factors in animal health decision-making	M. Carolyn Gates
415	C09	Development and application of joint risk assessment toolkits for zoonoses at human and animal interface	Kachen Wong-sathapornchai
416	C10	The monetary burden of cysticercosis in Mexico	Christine Budke
419	C11	The cost of bovine respiratory disease in US beef calves prior to weaning	David Roy Smith
426	C12	Beef and sheep producers' perceptions of disease reporting and the impact of emergency animal disease outbreaks in Australia	Jennifer Many-weathers
427	C13	Factors influencing farmer group participation in integrated surveillance and production systems: The case of cattle farmers in Indonesia	Edwina Leslie
439	C14	Using animal health economics to improve companion animal care	M. Carolyn Gates
478	C15	Preliminary study of *Dirofilaria imitis* in dogs and their impact on human health in Istria County, Croatia	Marina Pavlak

479	C16	Retrospective study of human rabies exposure and associated risk factors in Istria County, Croatia	Marina Pavlak
487	C17	Make health surveillance great again: how to ensure stakeholders' commitment in the reporting systems?	Marisa Peyre
502	C18	Poultry farm distribution models along a gradient of intensification in Nigeria, Thailand, Argentina and Belgium	Celia Chaiban
511	C19	Epidemiological surveillance network in poultry in France	Sophie Le Bouquin
516	C20	A risk assessment tool for evaluating biosecurity on aquaculture farms	Sophie Le Bouquin
546	C21	Models of two communities on factors affect pet owners'decision for rabies vaccination and population control	Sudson Sirivaidy-apong
563	C22	Will Japanese encephalitis virus be introduced to North America?: a risk assessment.	Ana R. S. Oliveira
566	C23	Implementation of a web-based information system for the automatic management of data on shellfish monitoring in the Venice Lagoon – Italy	Nicola Ferre'
569	C24	Seroprevalence of *Anaplasma marginale* in cattle, Kentucky USA	Chika Okafor
590	C25	The use of systematic review methodology in evaluating the impact of surgical sterilisation in canine rabies control programs: benefits and challenges	Abi Collinson
616	C26	Ensuring preparedness of national Caribbean Veterinary Services for Highly Pathogenic Avian Influenza - the essential contribution of the Caribbean Animal Health Network (CaribVET)	Jennifer Pradel
631	C27	How to implement a national livestock identification and traceability system for free (almost)	Angus Cameron
632	C28	Regionally integrated animal health surveillance systems	Angus Cameron
719	C29	Decision support tools and multi-criteria decision analysis to support state and national-level decisions during an emergency response: application to Foot-and-mouth disease in the United States	Tim Boyer
734	C30	Risk-based approaches to managing food safety in South Africa: A review with reference to Listeriosis outbreak in South Africa	Tendai Charles Katsande
783	C31	The equine influenza outbreak in Pakistan 2016: seroprevalence and Geo-TempOral epidemiology of a large propagating outbreak	Amjad Khan
Session D: One health (animal-human-environment interface)			
47	D01	One Health approach to control avian influenza; experience from Iran	Seyyed Jamal Emami
223	D02	Brucellosis in northern Tanzania: insights into human disease prevalence, multi-species transmission processes and the design of sustainable interventions	Jo Halliday
228	D03	The British E. coli O157 in Cattle Study (BECS): more than just prevalence estimates - implications for veterinary public health	Sue Tongue
249	D04	Quantitative assessment of the veterinary risk of using animal viruses in oncolytic therapy	Clazien J. De Vos
260	D05	Prevalence of Enterobacteriaceae resistant to the third generation cephalosporin and Extended-Spectrum β-Lactamase producing Enterobacteriaceae among urban rats (Rattus sp.) in Reunion Island, 2017-2018	Noellie Gay
264	D06	*Cysticercus bovis* in central Chile and its spatial association with watercourses and populated areas	Luis Pablo Hervé-Claude

269	D07	The influence of weather on primary Middle East respiratory syndrome coronavirus (MERS-CoV) cases in Saudi Arabia	Emma Gardner
272	D08	Environmental parameters and estimation of bacterial contamination in sentinel oysters and estuarine water from Phang Nga area in southern Thailand	Saharuetai Jeamsripong
282	D09	The effect of tylosin on antimicrobial resistance in beef cattle enteric bacteria: a systematic review	Casey Cazer
329	D10	The effect of tylosin and DFM supplementation on Enterococcus and antibiotic resistance determinants in the cattle feedyard environment and potential implications on human health	Ashlyn Holbert
362	D11	Evaluating the evolution and clonal expansion of Salmonella enterica serovar I 4,[5],12:i:- in swine and their environment	Selma Gonzalez
368	D12	European food safety authority emerging risks identification procedure	Ana Afonso
389	D13	Quantified dynamics of antibiotic-susceptible and resistant Salmonella enterica among feedlot cattle treated with antibiotics	Naomi Ohta
466	D14	A monitoring system for veterinary antimicrobial consumption in pig farms in Japan	Itsuro Yamane
490	D15	Antimicrobials in livestock farming: reducing their use while limiting health and socioeconomic risks into low and middle-income countries.	Francois Roger
507	D16	A comparison study of the antimicrobial prescription patterns in organic and conventional pig herds in Denmark	Amanda Brinch Kruse
614	D17	Whole-feedlot administration of direct-fed microbials to reduce fecal shedding of Escherichia coli O157:H7 in commercial feedlot cattle during period of high transmission.	Natalia Cernicchiaro
629	D18	Estimating antimicrobial usage in Scottish beef and dairy herds from veterinary sales data	George Gunn
643	D19	Detection of Brucella spp. in milk from various livestock species raised under pastOral production systems in Isiolo and Marsabit counties, northern Kenya	Martin Wainaina
750	D20	Bayesian risk assessment model of human cryptosporidiosis cases following consumption of raw Eastern oysters (Crassostrea virginica) contaminated with Cryptosporidium oocysts in Prince Edward Island, Canada	Thitiwan Patanasa-tienkul
782	D21	Prevalence and characterisation of Shiga toxin-producing Escherichia coli in sheep and goats from South Africa	Munyaradzi Marufu
1046	D22	Framework for the economic assessment of the antimicrobial use and resistance complex for the livestock sector in South East Asia.	L. Coyne
1048	D23	Simultaneous human and animal symptom surveillance in Yao and Danamadji, Chad	Ranya Özcelik
Session E: Special section: our trend and future			
144	E01	Sero-epidemiological investigation of Foot and mouth disease in cattle at the livestock-wildlife interface in Maasai Mara, Kenya	Daniel Nthiwa
219	E02	Veterinary vs. medical curriculum in educating future public (one) health workers	Sabina Seric-Haracic
365	E03	Mastitis mayhem: an on-farm exercise for integrating epidemiology into veterinary clinical education	M. Carolyn Gates
407	E04	Socioeconomic impacts of endemic Foot-and-mouth disease in Laos and Myanmar	Masako Wada

418	E05	Clinical rotation in population medicine	David Roy Smith
493	E06	Public-Private Partnerships in animal health: what is the current picture?	Marisa Peyre
522	E07	Epidemiology of *Avian Influenza* in HPAI endemicity study in Purbalingga, Jawa, Tengah, 2017	Elly Lubis
532	E08	What can we say from the death of layer chickens? Estimating within-flock HPAI (H5N2) dynamics using an Approximate Bayesian Computation framework	Thibaud Porphyre
544	E09	Identification of research priorities of veterinary surgeons and horse owners with regard to the diagnosis and treatment of Pituitary Pars Intermedia Dysfunction (PPID) in horses and ponies	Rebecca Tatum
585	E10	Moving towards a One Health surveillance system for antibiotic resistance in Vietnam.	Marion Bordier
599	E11	Epidemiology of Foot and mouth disease in an endemic setting	Dickson Nyaguthii
639	E12	Modelled Foot-and-Mouth Disease (FMD) outbreak frequency and characteristics following disease incursions	Isobel McLachlan
727	E13	Research within international non-governmental organisations: building research capacity through development of a global research group	Polly Compston

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colspan Session A: Epidemiology studies in specific species/topics			
37	A01	Disease occurrence, culling rate and production profile in Iranian Holstein dairy cattle during the early postpartum period	Mohammad Azizzadeh
40	A02	Determination of shedding levels of Mycobacterium avium paratuberculosis in New Zealand sheep farms using a direct faecal qPCR method	Milan Gautam
185	A03	Herd-level risk factors associated with infections of pathogenic leptospira, in lactating dairy cattle from Southern Chile	Victor Montes
375	A04	Concentration of antibiotics in tissue during oral treatments in farmed salmonids	Derek Price
464	A05	Factors associated with Pet Attitude Scale (PAS) among pet dog and their owners in Korea	Woo-hyun Kim
401	A06	Expatriation of animal experiments from Switzerland	Filipe Miguel Maximiano Alves de Sousa
438	A07	Investigation of association between bovine viral diarrhoea virus and cervid herpesvirus type-1, and abortion in New Zealand farmed deer.	Kandarp Khodidas Patel
441	A08	Making big data small to improve clinical decision-making on farm	M. Carolyn Gates
488	A09	Analysis of within-facility factors associated with survival in Australian southern rock lobster.	Kandarp Khodidas Patel
506	A10	Cross-sectional study of cow comfort and risk factors of lying time and cleanliness of smallholder dairy cows in Kenya	John Vanleeuwen
512	A11	Estimating the effect of intervention on contagious mastitis pathogens within herd using transmission rates derived from Bayesian analysis of a Hidden Markov Model	Mogens Krogh
515	A12	Cost/benefit analyses on indicator-based intervention on physiological imbalance in dairy cows	Mogens Krogh

524	A13	Cross-sectional study of productive and reproductive performance, and factors associated with milk production of lactating dairy cattle in smallholder dairy farms in Kenya	John Vanleeuwen
536	A14	Development of a generic model for assessing the risk of introduction and spread of viral diseases within marine farms in the Mediterranean basin	Saraya Tavornpanich
547	A15	Prevalence of bovine norovirus and nebovirus and risk factors for infection in Swedish dairy calves	Madeleine Tråvén
565	A16	Canadian National Dairy Study: Heifer calf health and management	Charlotte Winder
581	A17	Retrospective analysis of factors affecting clinical outcome following CHOP-based chemotherapy in dogs with primary nodal diffuse large B-cell lymphoma	Audrey Ruple
606	A18	The epidemiology of stifle joint disease in a population of insured Swedish dogs	Karolina Engdahl
607	A19	Using Google Trends as a free, independent additional data source; An example from the Dogslife project.	Charlotte Woolley
628	A20	Neosporosis seroprevalence in beef cattle in Uruguay	Valentina Macchi
649	A21	Paratuberculosis in goat herds in Quebec: prevalence, risk factors and diagnosis approaches	Julie Arsenault
673	A22	Incidence of fecal excretion of Mycobacterium avium subsp. paratuberculosis in dairy cows before and after the enrolment in the Québec Voluntary Program	Juan Carlos Arango Sabogal
677	A23	Can SMS change farmers knowlege and practices? a randomized control trial in Uganda	Silvia Alonso
743	A24	Evaluation of the main Risk Factors Associated with White Spot Syndrome Virus Occurrence in Sinaloa, Mexico, using a Bayesian Model	Jaber Belkhiria
834	A25	Simulating the silent spread of African swine fever in Great Britain	Claire Guinat
844	A26	Epidemiology of pseudorabies in intensive pig farms in Shanghai, China: herd sero-prevalence and risk factors	Xia Luming
902	A27	Occurrence of trypanosome infections in cattle in relation to season, livestock movement and management practices of Maasai pastOralists in Northern Tanzania	Esther Kimaro
1079	A28	Factors affecting the efficacy of antimicrobial treatment of Salmon Rickettsial Septicaemia in Chile: analysis of an integrated industry data platform	Jonathan Happold
1080	A29	Sea lice infestation of farmed salmonid fish in Chile: distribution and analysis of risk factors using regulatory data	Jonathan Happold
1082	A30	Serological screening of Dutch slaughter pigs to estimate the seroprevalence of *Toxoplasma gondii* infections at farms	Manon Swanenburg
Session B: Epidemiologic principles and methods			
473	B01	Social network analysis of duck trade movements in France: implications for avian influenza surveillance	Claire Guinat
510	B02	Assessment of the duck-trade network characteristics prior to recent highly pathogenic Avian Influenza (HPAI) outbreaks in France	Sophie Le Bouquin
520	B03	A spatial entry assessment model framework for incursion of exotic disease into the European Union (SPARE)	Amie Adkin
538	B04	Estimating vector risk through a joint epidemiological and spatiotemporal approach	Lisa Koeppel
579	B05	Modelling the spread of resistance to anthelmintic drugs in sheep nematodes	Jamie Prentice

697	B06	Simulating the spread and control of classical swine fever in the United States: analysis of emergency vaccination strategies	Tim Boyer
709	B07	Identifying host species driving transmission in a multi-host system: Developing and parameterising a model of zoonotic hybrid schistosome transmission in West Africa	AnnA Borlase
712	B08	Networks from space: how satellite imagery and GIS data can help predict disease spread	Nistara Randhawa
729	B09	Using normalisation process theory to understand embedding new technologies in veterinary epidemiology	Jasmeet Kaler
736	B10	OutbreakDS: Data science for outbreaks	Chris Jewell
850	B11	A Bayesian latent hierarchical model for estimating mean MIC and detecting MIC creep or decline	Annette O'connor
880	B12	Evaluation of interferon γ test for bovine tuberculosis diagnosis in Uruguay	Alvaro Nunez
Session C: Health policy and capacity building			
201	C01	Rabies and animal bites incidence in IR of Iran during 2007-2016	Vahid Rahmanian
435	C02	Prioritisation of livestock diseases susceptible to be affected by climate change in New Zealand	Emilie Vallee
480	C03	The Use of GIS in animal disease response. A distance-learning course	Nicola Ferre'
503	C04	Economic evaluation of the control program for Staphylococcus aureus genotype B in dairy farms in canton Ticino, Switzerland	Beat Thomann
525	C05	Socioeconomic impacts of working horses in urban and peri-urban areas of the Cape Flats, Cape Town, South Africa	John Grewar
601	C06	Integrating livestock keeper and biomedical knowledge of sheep and goat disease in the pastOralist Afar Region of Ethiopia: implications for peste des petits ruminants disease surveillance	Bryony Jones
645	C07	Importance of post-vaccination sero-surveillance for evaluating efficacy of vaccination programs against endemic diseases of livestock in developing countries	Michel Dione
646	C08	Stakeholder engagement to increase vaccination coverage against endemic livestock diseases in Mali	Michel Dione
651	C09	Estimating the sensitivity of the Canadian bovine tuberculosis surveillance system in farmed/captive cervids	Julie Arsenault
665	C10	Delivery of animal health services in extensive livestock systems in Kenya	Henry Kiara
694	C11	Probabilistic risk assessment of Hepatitis E in pork products	Matteo Crotta
706	C12	Engaging animal infectious diseases surveillance systems in interconnection: lessons from a participatory workshop	Jackie Tapprest
718	C13	One for all: a generic risk framework for all pathways of disease introduction	Rachel Taylor
724	C14	Surveillance of antibody titres protective to rabies on postvaccination dogs in Tungka village of Limapuluh Kota district, West Sumatera province, Indonesia, 2017	Betty Indah Purnama
730	C15	Avian influenza surveillance in poultry collecting facilities and poultry slaughterhouses in Subang, Indonesia	Etih Sudarnika
739	C16	Developing wildlife health surveillance in Cambodia	Flavie Goutard
742	C17	Upward trend for the Indonesian Animal Health Information System, from 2016 to 2017	Dhony K Nugroho
757	C18	GREASE a research network in partnership for a better management of emerging risks in South-East Asia.	Flavie Goutard

763	C19	A cross-sectional study and blood biochemical profile of anestrus on beef cattle in Grobogan district, central Java, 2013	Betty Indah Purnama
770	C20	Innovative strategy for the coordination of regional health networks: the contribution of Project, Quality and Multi Project Management - the example of CaribVET	Jennifer Pradel
771	C21	Quantitative assessment of the probability of introducing bovine Brucellosis into Scotland and Wales by imported cattle	Alessandro Foddai
788	C22	Pork value chains in Rwanda: national value chain structure as a means of understanding cysticercosis risk in the pig sector	Anselme Shyaka
797	C23	Entomological surveillance of vectors of Bluetongue virus in Croatia	Marina Pavlak
806	C24	Costs estimation of human salmonellosis outbreaks associated to animal products consumption in Brazil, 2008/2016	Anna Brasileiro
811	C25	International Collaboration to Change Animal Health Policy, and Control Animal Diseases.	Conrad Estrada
818	C26	Progressive control pathway for Foot-and-mouth principles into practice in Southeast Asia	Chris Bartels
831	C27	Assessment of the potential economic impact of MRSA to the Australian pig industry	Shafi Sahibzada
837	C28	Risk mitigation for Influenza A (H7N9) spread outside of China through informal poultry trade	QI Yu
901	C29	Animal health needs for small-scale farms and urban agriculture in the Western United States	Jerome Baron
910	C30	Evaluation for action – Enhancing animal disease surveillance capacity in West, Central and East Africa	Gael Lamielle
Session D: One health (animal-human-environment interface)			
308	D01	Zoological Parks are underutilized insect surveillance opportunities	Lee Cohnstaedt
380	D02	Evaluation of oral bait drop to access dogs for rabies vaccination in Goa, India	Stella Mazeri
387	D03	Roaming and social behavior of free roaming dogs	Charlotte Warembourg
514	D04	Emergence, prevalence and diversity of rodent zoonotic viruses in the United Kingdom	Ellen Murphy
560	D05	Regional approach to ending pandemics: south asia One Health disease surveillance network	Sithar Dorjee
618	D06	Stress and resilience among Canadian Farmers: a mixed methods approach	Briana Hagen
689	D07	Mapping out socio-economic drivers of antimicrobial usage in poultry farms in Vietnam: a combined Participatory Epidemiology and Q-methodology approach	Bao Truong
714	D08	Risk perception and practices regarding the antibiotic use in pigs and poultry farms in Madagascar - A Q method approach	Flavie Goutard
726	D09	Investigating practices and attitudes of poultry and pig farmers and vet drug suppliers towards antibiotic usages and alternative practices in Nan Province, Thailand	Flavie Goutard
745	D10	Antimicrobial resistance in intensive poultry and milk production in South Africa: from historical data analysis to the monitoring of the use of antibiotics.	Eric Etter
809	D11	Nationwide prevalence of *E. coli* O157:H7 and shiga toxin producing *E. coli* (STEC) in Brazilian beef, 2015-2016	Serguei Brener
871	D12	Innovation warning system approach for meat inspection in poultry slaughterhouses	Sophie Le Bouquin

951	D13	Serotypes and antimicrobial resistance of Salmonella spp. isolated from the smallholder pig value chain in Hung Yen and Nghe An provinces, Vietnam	Sinh Dang-xuan
1069	D14	Freshwater aquaculture and dissemination of antibiotic resistance in a watershed in Chile	Irene Bueno
Session E: Special section: our trend and future			
207	E01	History and epidemiology of Foot and mouth disease in Afghanistan: a retrospective study	Arash Osmani
587	E02	Spatial epidemiology of highly pathogenic avian influenza A H5N6 poultry outbreaks in Korea, 2016-2017: case-case study to identify hotspot-related factors	Jun-sik Lim
841	E03	Development of a conceptual framework and assessment tools to assess the Foot and Mouth Disease (FMD) control program in the proposed FMD-free zone in Thailand	Naree Ketusing
682	E04	Temporal and geographic distribution of weather conditions favorable to airborne spread of Foot-and-mouth disease in the coterminous United States	David South
758	E05	Infection dynamics of Foot-and-mouth disease in contact-exposed pigs are determined by the estimated exposure dose	Karla Moreno-Torres
768	E06	OIE veterinary education twinning programme: postgraduate education by research	Maria Inês Neves
769	E07	Identification of areas at risk for Foot-and-mouth disease virus circulation in Ecuador using maximum entropy models	Jose Gomez-Vazquez
794	E08	The reproductive number: an elegant method for determining vaccination impact on Highly Pathogenic Avian Influenza outbreak transmission in backyard poultry populations on Java	Christine Jost
946	E09	Life cycle assessment of swine and poultry production in the Philippines: a comparison of housing with natural and tunnel ventilation	Glenn Oca

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Abstract No.	Poster Board No.	Title	Name
Session A: Epidemiology studies in specific species/topics			
122	A01	A ten-year trend in piglet death occurrences in early, mid or late lactation on Spanish farms	Yu Yatabe
346	A02	A comprehensive on-farm risk assessment tool for bovine respiratory disease (BRD) in preweaned dairy calves	Sharif Aly
704	A03	An evaluation of management practices associated with the presence of Salmonella Heidelberg infections in U.S. dairy calves	Jason Lombard
708	A04	Management practices associated with morbidity and mortality in preweaned dairy heifer calves	Natalie Urie
713	A05	Management practices associated with higher average daily gain in preweaned dairy heifers	Chelsey Shivley
656	A06	Evaluation of trace elements status of cattle and buffalo in Haryana, India	Sandeep Kumar
654	A07	Swedish dairy farmers' intentions to reduce use of antibiotics	Ulf Emanuelson
759	A08	Increased levels of hair cortisol found in dairy calves not coping with competition	Lena-Mari Tamminen
778	A09	Network analysis of cattle movements as an assessment of risk potential of disease spread in Slovenia	Tanja Knific

780	A10	National sero-epidemiological survey for cattle brucellosis in Uruguay	Andres Gil
803	A11	Seroprevalence of brucellosis in dairy cattle in three selected districts of Punjab, Pakistan	Iahtasham Khan
810	A12	Antimicrobial use in Canadian beef cattle: extent, indications, and risk factors for treatment.	Sherry Hannon
838	A13	Cross-sectional study to estimate the dog population and economic impact on the use of mass rabies vaccine in Nay Pyi Taw Council area of Myanmar	Kyaw Naing Oo
852	A14	Mutations associated to synthetic pyrethroids and fipronil resistance in *Rhipicephalus microplus* from Uruguay and Brazil	Eleonor Castro-Janer
860	A15	Temporal patterns and spatial-temporal clustering of porcine reproductive and respiratory syndrome (PRRS) in Vietnam from 2008 through 2016	Hu Suk Lee
873	A16	Isolation and real-time PCR detection of Brucella abortus in lymph node in serologically positive cows in Uruguay	Alejandra Suanes
874	A17	Leptospirosis seroprevalence in beef cattle in Uruguay	Alejandra Suanes
894	A18	Evaluation of parity as a delaying factor to reach PRRSv stability in a sow farms	Juan Manuel Sanhueza
917	A19	Australia's national wild surveillance program for white spot syndrome virus	Yuko Hood
924	A20	Farming factors affecting calicivirus infection in dairy farms in Sweden	Isabel Blanco Penedo
947	A21	Infectious Salmon Anaemia virus (ISAv) surveillance: An approach to enhanced surveillance for early detection of disease	Nicole O'Brien
977	A22	Knowledge and understanding of owners on orthopedic problems in clinically overweight neutered dogs.	Sudson Sirivaidy-apong
980	A23	An investigation for risk factors of donkey abortion and foal dying in Shandong province	Yi Zhang
1000	A24	Developing a predictive model for vesicular stomatitis: a USDA-ARS Grand Challenge project	Dannele Peck
1008	A25	The detection of Sarcocystis spp. in fetus of sika deer (Cervus nippon yesoensis) in Japan	Yoshitaka Yamaguchi
1016	A26	Transmission of waterborne fish and plant pathogens and engineered control methods in aquaponics: a systematic mixed-studies review	Rebecca Smith
1018	A27	Genetic diversity of Leishmania infantum suggest a common transmission cycle in humans, dogs and wildlife in Southeast Spain	Eduardo Berriatua
1159	A28	Identification of zoonotic *Giardia intestinalis* in Korean native calves with normal feces	Kyoung-Seong Choi
1164	A29	Investigating kid mortality on Ontario dairy goat farms	Julia Kim
997	A30	Inter-observer agreement in categorization of racehorse necropsy reports	Ashley Hill
Session B: Epidemiologic principles and methods			
921	B01	Developing the International Classification of Animal Diseases	Mieghan Bruce
905	B02	The use of Egg Yolk to Detect Antibody in Poultry flocks in Indonesia	Alfred Kompudu
935	B03	Accuracy of leukocyte esterase, endometrial cytology and vaginal discharge score to diagnose reproductive tract diseases in dairy cows, using a hierarchical Bayesian latent class model	Juan Carlos Arango Sabogal

360	B04	Environmental sample characteristics and herd size associated with decreased herd-level prevalence of *Mycobacterium avium* subspecies *paratuberculosis*	Caroline Corbett
798	B05	Consumer prception in relation to beef certification in Belo Horizonte.	Serguei Brener
892	B06	The influence of case submission routes on animal rabies detection rate: case of lower northeastern Thailand, 2016-2018	Bopit Puyati
725	B07	Investigation on the possible effect of the temperature on a Testudinid Herpesvirus 3 (TeHV3) outbreak	Andrea Felici
732	B08	A system dynamics model of necrotic enteritis in broilers	Robert Wills
820	B09	Characterizing transmission of Mycobacterium bovis in a multi-host system	M.C.M. De Jong
822	B10	Overview of the Animal Disease Spread Model: A tool for simulating highly contagious disease outbreaks	Melissa Schoenbaum
836	B11	Epidemiological applications for the control of bovine tuberculosis in the state of Bahia, Brazil	Luciana Avila
857	B12	Mathematical model on Foot-and-mouth disease transmission under the regular vaccination strategy	Daesung Yoo
994	B13	Predictive modelling of ovine haemonchosis risk based on the effects of climate on the free-living stage of *Haemonchus controtus* in the United Kingdom	Muhammad-bashir Bolajoko
Session C: Health policy and capacity building			
36	C01	An overview of animal health and communication constraints in smallholder farming systems of Machakos County, Kenya	Florence Mutua
436	C02	Detection of swine influenza virus infection in a high-risk pig population in North Sumatera, Indonesia	Faisal Jambak
698	C03	Infectious bovine rhinotracheitis: results of the Italian National Surveillance Plan	Carmen Maresca
701	C04	Situation of priority diseases in South Sulawesi based on integrated National Animal Health Information System of Indonesia (iSIKHNAS) during 2015-2017	Dini Yudianingtyas
825	C05	Livestock diseases in the highlands of Ethiopia: Participatory epidemiology and gender perspectives	Solomon Gizaw
854	C06	Risk assessment on highly pathogenic avian influenza using machine learning method for poultry farms in Korea	Daesung Yoo
856	C07	Information and communication technology for animal diseases control in the Republic of Korea	Daesung Yoo
862	C08	Syndromic surveillance system for early detection of rabies cases in Bali Province, 2017	Nurhayati Nurhayati
868	C09	Moving sheep towards improved surveillance design – a case of resistance	Sue Tongue
869	C10	Trade in live animals and animal products: exploring global trends over a 20-year period using social network analysis	Lisa Kohnle
879	C11	Evaluating freedom of chronic wasting disease in wild reindeer populations accounting for differential sensitivity during the course of infection	Petter Hopp
884	C12	Characterisation of One Health surveillance based on a systematic literature review and an expert-opinion elicitation.	Marion Bordier
899	C13	Backyard poultry and small-scale livestock production in the Western United States: a risk factor analysis	Jerome Baron
908	C14	The transmission of some mosquito-borne flaviviruses in urban cities in Vietnam	Thang Nguyen

922	C15	Getting rid of property codes solves the modifiable areal unit problem	Ben Madin
923	C16	Isolation and characterization of H9N2 influenza virus from the first reported H9N2 outbreaks in chicken layer farms in South Sulawesi, Indonesia	Muflihanah Muflihanah
929	C17	Livestock markets classification for guiding targeted interventions along the livestock supply chain in Cameroon	Paolo Motta
932	C18	Quantitative risk assessment for bovine tuberculosis in White rhinoceri intended for export from the Kruger National Park, South Africa	Louis van Schalkwyk
933	C19	Optimisation of national monitoring systems incorporating risk analysis, mapping and animal movement	Cecile Squarzoni Diaw
939	C20	Development of GIS capacities in animal health in the Caribbean, application to the Avian Influenza risk mapping – the essential contribution of CaribVET	Secretariat Caribvet
940	C21	The increasing role of entrepreneurial skills in the veterinary private sector: the case of Slovenia	Tanja Knific
944	C22	Evidence-based veterinary capacity development using epidemiology mapping tool	Kachen Wong-sathapornchai
969	C23	Building veterinary epidemiology capacity in West and Central Africa through a training workshop, a process evaluation based on the Kirkpatrick model.	Louise Vince
578	C24	Using ontologies to create open source smartphone-based differential disease diagnosis and reporting tools for animals in rural settings	Crawford Revie
1025	C25	Control of refrigeration temperature at retail stores for food safety	Maria J Vilar
1044	C26	Economic aspects of the control of pancreas disease in Norwegian salmonid aquaculture	Mona Jansen
1078	C27	Are classical approaches to disease surveillance still relevant? People, technology and the pursuit of the surveillance 'holy grail'	Jonathan Happold
1081	C28	Strengthening national sharing of surveillance data for the good of all	Jonathan Happold
1174	C29	Entry risk analysis of West Nile Virus to China	Changyong Cheng
173	C30	Quality control of purified protein derivative tuberculins: essential for effective bovine tuberculosis control and eradication programmes	Margaret Good
927	C31	The Benefit of Competency Development for Government Veterinary Service Officer in Klaten District for Avian Influenza Disease Handling in Indonesia	Yulia Rinahayu
Session D: One health (animal-human-environment interface)			
1,175	D01	Modelling the introduction of *Varroa*-resistance into the Australian honeybee population	Robert Owen
623	D02	Identifying opportunities to improve the effectiveness in rabies control in Thailand using geographical analysis	Kaushi Kanankege
792	D03	Ranking of consumer exposure to antibiotic resistance genes from retail meat	Katharina D.C. Stärk
807	D04	Patterns of antimicrobial usage reduction in French rabbit farms - a trajectory analysis	Claire Chauvin
830	D05	Two risk models to assess the potential for resistance selection and residues transferred to soil due to oral antimicrobial treatments of pigs	Maria Eleni Filippitzi

832	D06	MRSA prevalence amongst commercial pig herds in Australia	Shafi Sahibzada
931	D07	Annual rabies vaccination of 89,000 dogs in urban and rural Malawi – WHO recommended 70% target can be reached	Stella Mazeri
952	D08	The HyData Project: Building what we know about Echinococcus granulosus in the United Kingdom	Marisol Collins
990	D09	Identification and understanding of social dimension regarding the antimicrobial usage in Thailand	Kshitiz Shrestha
991	D10	One medicine – the interface between veterinary and human health	Kshitiz Shrestha
1012	D11	What a tangled web we weave: rabies ecology at the human-livestock-wildlife interface in Punjab, India	Victoria Brookes
1014	D12	The enterotoxic activity of Sarcocystis fayeri actin depolymerizing facter (ADF)	Akiko Yamazaki
1026	D13	Evaluation of the food safety risk associated with hepatitis in broilers	Marianne Sandberg
1028	D14	Integrating knowledge of the quantitative effect of antimicrobial usage on resistance with national register-based data at pig farm level to assess effect of usage alternations	Vibe Dalhoff Andersen
1029	D15	Using System Effect modelling to evaluate food safety impact and barriers in low-income-countries: an example from urban Cambodia	Kristina Roesel
1031	D16	Source attribution of Salmonella in macadamia nuts to animal and environmental reservoirs: Queensland, Australia.	Nanna S. M. Munck
1032	D17	Machine learning is a potentially innovative method for source attribution using next generation sequencing data: case of Salmonella Typhimurium	Nanna S. M. Munck
1168	D18	Antimicrobial resistance surveillance in chicken and pig in Viet Nam	Pawin Padungtod
Session E: Special section: our trend and future			
131	E01	Seroprevalence of bovine coronavirus antibodies in dairy cows in Prachuap Khiri Khan province, Thailand	Kanokwan Singasa
808	E02	Network for evaluation One Health: a system approach for better integration	Simon Rüegg
839	E03	Factors influencing animal rabies in southern Thailand, January 2014 – June 2017	Apichart Sup-siriphaiboon
889	E04	Teaching One Health and epidemiology as tools for applied critical thinking	Yvette Johnson-Walker
936	E05	Determinants of Foot-and-mouth disease in Iran: a farm level case control study	Alireza Bahonar
958	E06	Willingness-to-pay/Willingness-to-accept to air and water quality improvement/degradation among households in swine and poultry farm communities in the Philippines	Ryan Cristil Real
984	E07	Molecular epidemiology of Iranian Foot-and-Mouth Disease (FMD) viruses based on full genome sequencing data, 2017	Arash Ghalyanchi-langeroudi
1030	E08	Economic and social analyses of avian influenza A (H7N9) control strategies in southern China	Hao Tang

ISVEE PRE- AND POST-CONFERENCE WORKSHOPS

Pre- and post-conference workshops will take place at Duangtawan Hotel Chiang Mai,

Address:
132 Loi Kroh Rd, Tambon Chang Khlan, Amphoe Mueang Chiang Mai, Chang Wat Chiang Mai 50100, Thailand
Phone: +66 53 905 000
http://www.duangtawanhotelchiangmai.com

PRE-Conference Workshops

Date	Workshop	Instructors	Room
10-11 November (2 days)	Modeling food safety and animal health risks using R	Solenne Costard, Francisco J. Zagmutt	Chiang Roong 3rd Floor
11 November (1 day)	Introduction to network analysis and network data visualization for veterinary epidemiology using open access tools	Beatriz Martínez López, Esther Kukielka, Jerome Baron, Gema Vidal, Kyuyoung Lee	Chiang Kam 3rd Floor

POST-Conference Workshops

Date	Workshop	Instructors	Room
17-19 November (3 days)	A hands-on workshop on network analysis and modelling for epidemiologists	Guillaume Fournié, Dirk Pfeiffer, Susanne Pfeiffer, Natalie Moyen	Doi Luang 24th Floor
17-19 November (3 days)	Interpretation and validation of diagnostic tests in veterinary science	Mark Stevenson, Simon Firestone, Geoff Jones, Cord Heuer, Ian Gardner, Axel Colling	Chiang Sean 3 3rd Floor
17 November (1 day)	Current epidemiological tools for wildlife disease outbreak investigation and surveillance	Jonathan Sleeman, Parntep Ratanakorn, Witthawat Wiriyarat, Anuwat Wiratsudakul, Sarin Suwanpakdee	Chiang Sean 4 3rd Floor
17-19 November (3 days)	Evaluation of surveillance systems: principles and methods	Marisa Peyre, Flavie Goutard	Chiang Kham 3rd Floor

SOCIAL PROGRAMME

Gala dinner at Royal Flora Ratchaphruek

The Royal Flora Ratchaphruek is situated 10 km southwest of Chiangmai, in Mae Hia sub-district nestled in a lush mountain landscape, this 400 Rai (240,000 m2) of land is indeed a picturesque setting not only the garden itself with its many plant and flower species but also its unique and delicate artwork and architecture which enriches the minds of its visitors with its seductive natural beauty.

The Royal Flora Ratchaphruek was an international horticultural exposition held 1 November 2006 to 31 January 2007 in Chiang Mai. It was one of the grand celebrations hosted by the Royal Thai Government in honor of King Bhumibol, the world's longest reigning monarch at that time. The Ratchaphruek *(Cassia fistula L.)* or golden shower tree is the de facto national flower of Thailand. Its yellow blossoms correspond to Monday, the birthday of Bhumibol. It is also named "Khun" or "Chaiyaphruek".

Registered participants are invited to attend the Gala Dinner at Royal Flora Ratchapruek on Wednesday 14 November 2018 from 18:00-22:00 hrs.

17:30 hrs: bus leave from The Empress Hotel to Royal Flora Ratchapruek
22:00 hrs: bus leave from Royal Flora Ratchapruek back to The Empress Hotel

GENERAL INFORMATION

THE VENUE
The Empress Convention Centre & The Empress Chiang Mai Hotel
199/42 Chang Klan Road
Chiang Mai 50100, Thailand
Phone: +66 53 253 199 / +66 53 270 240
http://empresshotels.com/.

REGISTRATION DESK HOURS
The registration desk will be located on Level 1, The Empress Convention Centre and will open as follows:

Sunday, 11 November 2018	14:00 – 17:00 hrs
Monday, 12 November 2018	7:30 – 17:00 hrs.
Tuesday, 13 November 2018	7:30 – 17:00 hrs.
Wednesday, 14 November 2018	8:00 – 17:00 hrs.
Thursday, 15 November 2018	8:00 – 17:00 hrs.
Friday, 16 November 2018	8:00 – 12:00 hrs.

EXHIBITION HOURS
The exhibition hall is located on Level 2, The Empress Convention Centre and will be open as follows:

Monday, 12 November 2018	9:00 – 17:00 hrs.
Tuesday, 13 November 2018	9:00 – 17:00 hrs.
Wednesday, 14 October 2018	9:00 – 17:00 hrs.
Thursday, 15 November 2018	9:00 – 17:00 hrs.
Friday, 16 November 2018	9:00 – 15:30 hrs.

SCIENTIFIC PROGRAMME
A full interactive Scientific Program is available on the Congress website via the following link: http://isvee.net/scientific-information/program-at-a-glance/. Presenters are encouraged to visit this link and verify their presentation schedule as it may have changed.

CERTIFICATE OF ATTENDANCE / PRESENTATION
Please note that certificates of attendance / poster presentation / oral presentation will NOT be printed onsite. Certificates of Attendance will be issued to all attendees electronically after the Congress.

REFRESHMENTS AND LUNCH
Refreshments and lunch will be provided daily according to the time indicated in the program.

OPENING CEREMONY
Registered participants are invited to attend the Opening Ceremony on Monday 12 November 2018 from 8:30-9:15 hrs at Grand Hall, Level 3, The Empress Convention Centre.

GALA DINNER
Registered participants are invited to attend the Gala Dinner at Royal Flora Ratchapruek on Wednesday 14 November 2018 from 18:00-22:00 hrs.
17:30 hrs: bus leave from The Empress Hotel to Royal Flora Ratchapruek
21:00 hrs: bus leave from Royal Flora Ratchapruek back to The Empress Hotel
RSVP required at the registration counter

FAREWELL COFFEE
Registered participants are invited to the Farewell Coffee on Friday 16 November 2018 from 15.00-15.30 hrs.

SMOKING POLICY
Smoking is prohibited at all times in the meeting halls, exhibit halls and restrooms. Your compliance is appreciated.

LIABILITY AND INSURANCE
The Congress Secretariat and Organizers cannot accept liability for personal accidents or loss of or damage to private property of participants and accompanying persons. Participants are advised to take out their own personal travel and health insurance for their trip.

CONGRESS ORGANIZER

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Bangna, Bangkok 10260
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Tel: +662 7487881
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Email: isvee15@kenes.com

INSTRUCTIONS FOR SPEAKERS & ORAL PRESENTERS

Speakers' Presentation

Speakers and oral presenters are requested to upload PowerPoint slide presentations at the Speakers' Ready Room at least 3 hours prior to your session. There will be a technician available to assist you.

For the presentation at The Empress Convention Centre, please upload your presentation at Speakers' Ready Room on level 1, The Empress Convention Centre.

For the presentation at The Empress Hotel, please upload your presentation on level 2 of The Empress Hotel.

<u>**The total presentation time is 18 minutes which inclusive of 13 minutes presentation and 5 minutes Q&A.**</u>

Power point slide format should be 4:3 format.

You may use the congress toolkit that we provided.

Data Presentation: For PowerPoint presentations (or any other PC based applications), please bring your presentation on a USB Memory stick and load it on one of the Congress computers in the Speaker Ready Room at least 3 hours before the start of your session. Kindly remember when preparing your PowerPoint slides, that the font size should be large enough (at least 28) so that when projected it can be seen from the rear of the session hall. Please also remember that your PowerPoint slide presentation should be prepared in a landscape format and NOT Portrait.

If including videos in your presentation, please make sure to check that they work in the Speaker Ready Room AND ALSO in the session hall where your lecture is taking place (during a coffee or lunch break at least 30 minutes prior to your session.

Please note that the congress computers in the session halls are being supplied with Office 2013 (at least).

Although not recommended, you may supply your own laptop computer. In such a case, please confirm that it has a suitable VGA socket for external signal. Please check it first in the Speaker Ready Room as soon as you arrive and later on in the session hall where your lecture is taking place during the coffee or lunch break at least 30 minutes prior to your session.

<u>PLEASE BRING A HARD COPY BACK-UP OF YOUR PRESENTATION WITH YOU.</u>

Important note for Macintosh users:

In order to use a Mac presentation on a PC compatible computer, please note that you need to prepare it according to the instructions below, before bringing it to the Speaker Ready Room:

- Use a common font, such as Arial, Times New Roman, Verdana etc. (special fonts might be changed to a default font on a PowerPoint based PC).
- Insert pictures as JPG files (and not TIF, PNG or PICT – these images will not be visible on a PowerPoint based PC).
- Use a common movie format, such as AVI, MPG and WMV. MOV files from QuickTime will not be visible on a PowerPoint based PC.

Alternatively, you may use your own Macintosh laptop computer. In such a case please provide a VGA adaptor for external signal, advise the operators in the Speaker Ready Room as soon as you arrive, and test it in the session hall where your lecture is taking place during the coffee or lunch break at least 30 minutes prior to your session.

Please note that VHS Video projection, 35 mm' slide projection and Overhead projection (projection of transparencies) will not be available.

At the Session Hall

- Assemble in your session room at least 10 minutes before the beginning of the session.
- Please check the final program to confirm the date, time, room and order of your presentation.
- Ensure that you sit near the front of the room with easy access to the stage.
- Ensure that you keep to the time allocated to you, as it will cause disruption to sessions if you run over your allotted time.
- If there are any changes or corrections required to the presentation details, please let the Technician know as soon as possible.

INSTRUCTIONS FOR POSTER PRESENTERS

Posters will be displayed in front of session hall. Please check with Poster Help Desk for the board number on which you should display your poster. Please use the board with the same number.

Poster presenters may mount their posters from 08:00 on the designated presentation date and should remain on display until 18:00 on the designated day. Presenters should be present at their designated poster board(s) during coffee and lunch breaks to answer any questions. These events give you the unique chance to discuss your work with other scientists. The Organizing Committee will not be responsible for posters that are not removed by 18:00 on the designated day.

Poster session:

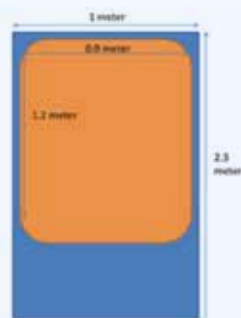|	
Monday 12 November 2018	16:30-17:30
Tuesday 13 November 2018	16:30-17:30
Wednesday 14 November 2018	16:30-17:30
Thursday 15 November 2018	16:30-17:30

Technical Specifications:

The dimensions of the poster board are PORTRAIT style.

Poster Board Size: 1mW x 2.5mH.

It is recommended that your poster be no larger than 90cm wide x 120cm high (Portrait style).

● Posters may be prepared on one sheet (preferred method) or alternatively on several smaller sheets.
● Allocate the top of the poster for the title and authors as stated on the submitted abstract.
● The text, illustrations, etc. should be bold enough to be read from a distance of two meters.
● Double-sided tape will be available in the poster area for hanging of posters. Staff will also be in the poster area to assist you with poster location. Putting up poster will be done by each author.
● The organizers are not responsible for any posters that have not been removed by the end of the sessions on the day in which they have been scheduled.

Poster Overview:

Presenters are requested to stand by their posters for a 3 minutes discussion during the poster session time.
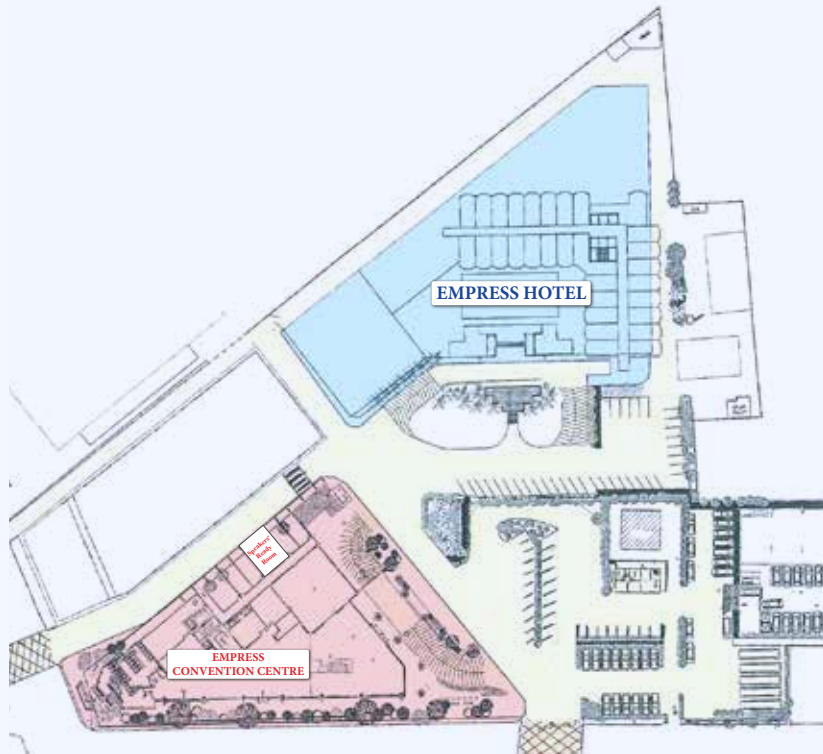
ISVEE BUSINESS MEETING (TENTATIVE AGENDA)

Date&Time: Wednesday, November 14, 13:30h-15.30h
Venue: Grand Hall, Level 3, The Empress Convention Centre

Tentative Agenda

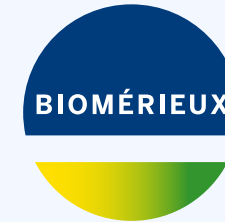|	
13:30h	Opening remarks and introduction of new chair of ISVEE IMC: Alfredo Dajer, chair, ISVEE IMC (3 min)
13:33h	Review/Approval of minutes of ISVEE 14 Business Meeting of 5 November 2015: Thanawat Tiensin, new chair, ISVEE IMC (5 min)*
13:38h	Review/Approval of financial report of ISVEE 14 Yucatan 2015: Alfredo Dajer (5 min)
13:43h	Presentation of ISVEE 15 statistics: ISVEE 15 representative (5 min)*
13:48h	ISVEE Awards (announcement only): ISVEE IMC or ISVEE 15 representative (3 min)*
13:50h	Preliminary financial report of ISVEE 15: ISVEE 15 representative (4-5 min)*
13:55h	Progress report of ISVEE 16 Canada 2021: Javier Sanchez, chair, ISVEE 16 (5+5=10 min; includes 5 min for Questions & Answers)
14:05h	Presentation of proposals for hosting ISVEE 17 in 2024
14:05h	Australia: Michael WARD (5+5=10 min; includes 5 min for Questions & Answers)
14:15h	Switzerland: Gertraud SCHUPBACH (5+5=10 min; includes 5 min for Questions & Answers)
14:25h	Vote to select new venue for ISVEE 17 (15 min)
14:40h	Election of ISVEE IMC new members (15 min)
14:55h	Other items
15:00h	Adjourn

EMPRESS HOTEL
- Pailin, Paytai, Paitoon Level 3

EMPRESS CONVENTION CENTRE
- Registration Level 1
- Lunch Area Level 1
- Speakers' Ready Room at Boardroom 3 Level 1
- Coffee Break Level 2
- Chiang Mai 1-5 Level 2
- Grand Hall Level 3
- Poster Boards Level 3

Speacial thanks to

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EXHIBITORS PROFILE

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bioMérieux is determined to continue to play a pioneering role by innovating and designing the diagnostic solutions of the future to address the major challenges for public health worldwide.

bioMérieux provides diagnostic solutions (reagents, instruments, software) which determine the source of disease and contamination to improve patient health and ensure consumer safety.

Its products are used for detecting microorganisms in agri-food, pharmaceutical and veterinary.

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International Livestock Research Institute (ILRI)

Address:	Nairobi, Kenya P.O Box 30709-00100 Uthiru, Old Naivasha Road
Country:	Kenya
Postal Code:	00100
Contact Person:	Fred Unger
Contact Number:	+84 (0) 975 362 471
Email:	f.unger@cgiar.org

The International Livestock Research Institute (ILRI) works to improve food and nutritional security and reduce poverty in developing countries through research for efficient, safe and sustainable use of livestock. It is the only one of 15 CGIAR research centres dedicated entirely to animal agriculture research for the developing world. Co-hosted by Kenya and Ethiopia, it has regional or country offices and projects in East, South and Southeast Asia as well as Central, East, Southern and West Africa.

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