



## ORAL COMMUNICATIONS

**TUESDAY JUNE 5<sup>th</sup>**

### Section 1. Diagnostic, Immunology and Host Response

8:45-9:30 **Lecture. Dr. Claus D Buergelt (U.S.A.): "Aspects of Pathology and Pathogenesis of Domestic Ruminant Paratuberculosis".**

**Moderator: Victoria E. Castrellón Ahumada**

9:30-9:45 Coffee break

**1<sup>st</sup> Oral Session. Moderators: Marta Alonso & Frank Griffin (9:30-12:45)**

9:45-10:00 **1.1 LIMITED ADAPTIVE IMMUNE RESPONSES OF GOAT KIDS TO MAP BACTERIN VACCINATION WHEN RAISED IN A MYCOBACTERIUM AVIUM SSP PARATUBERCULOSIS (MAP) FREE ENVIRONMENT.** Ad Koets<sup>1</sup>, Lars Ravesloot<sup>1</sup>, Robin Ruuls<sup>1</sup>, Annemieke Dinkla<sup>1</sup>, Karianne Lievaart-Peterson<sup>2</sup>.

<sup>1</sup> Wageningen Bioveterinary Research, Lelystad, The Netherlands

<sup>2</sup> GD Animal Health, Deventer, The Netherlands

10:00-10:15 **1.2 FAILURE TO DETECT M. AVIUM SUBSPECIES PARATUBERCULOSIS BY FLUORESCENT IN SITU HYBRIDIZATION (FISH) IN JOHNE'S OR CROHN'S DISEASE USING A PROPRIETARY ASSAY.** Robert Greenstein<sup>1</sup>, Liya Su<sup>1</sup>, Peter Fam<sup>1</sup>, Judith Stabel<sup>2</sup>, Sheldon Brown<sup>1</sup>.

<sup>1</sup>JJP Veteran Affairs Medical Center Bronx NY USA

<sup>2</sup>USDA-ARS-NADC Ames Iowa USA

10:15-10:30 **1.3 DIVERSE HISTOPATHOLOGICAL AND MICROBIOLOGICAL FINDINGS IN EXPERIMENTAL MYCOBACTERIUM AVIUM SUBSPECIES PARATUBERCULOSIS INFECTION IN CATTLE.** Richard Whittington<sup>1</sup>, Douglas



Begg<sup>1</sup>, Karren Plain<sup>1</sup>, Kumudika de Silva<sup>1</sup>, Ratna Gurung<sup>1</sup>, Alison Gunn<sup>1</sup>, Auriol Purdie<sup>1</sup>.

1 The University of Sydney

10:30-10:45 **1.4 PREDICTION OF THE GENETIC SUSCEPTIBILITY TO PARATUBERCULOSIS IN DAIRY CATTLE USING ALLELIC COMBINATIONS OF FIVE SINGLE NUCLEOTIDE POLYMORPHISMS (SNPS) IN CD209, SLC11A1, SP110, AND TLR2 GENES.** María Caniv<sup>1</sup>, Rosa Casais<sup>1</sup>, Patricia Vázquez<sup>2</sup>, Ana Balseiro<sup>3</sup>, José M. Prieto<sup>3</sup>, Javier Amado<sup>4</sup>, José A. Jiménez<sup>5</sup>, Joseba Garrido<sup>2</sup>, Ramón A. Juste<sup>3</sup>, Marta Alonso-Hearn<sup>2</sup>.

<sup>1</sup>Servicio Regional de Investigación y Desarrollo Agroalimentario. Centro de Biotecnología, Deva, Asturias, Spain

<sup>2</sup>NEIKER- Instituto Vasco de Investigación y Desarrollo Agrario, Animal Health Department, Derio, Bizkaia, Spain

<sup>3</sup>SERIDA, Servicio Regional de Investigación y Desarrollo Agroalimentario. Centro de Biotecnología, Deva, Asturias, Spain

<sup>4</sup>LSAPA, Animal Health Laboratory of the Principality of Asturias, Department of Microbiology, Gijón, Asturias, Spain

<sup>5</sup>CONAFE, Spanish Federation of Holstein Cattle, Madrid, Spain

10:45-11:00 **1.5 EARLY DIAGNOSIS OF PARATUBERCULOSIS INFECTION USING ELISAS BASED ON THE DETECTION OF HOST BIOMARKERS.** Rosa Casais<sup>1</sup>, Crsitina Blanco<sup>1</sup>, Ana Balseiro<sup>1</sup>, Ramón Antonio Juste<sup>1</sup>, José Miguel Prieto<sup>1</sup>, Rosana Torremocha<sup>2</sup>, Beatriz Soriano<sup>3</sup>, Ricardo Ramos<sup>2</sup>, Carlos Llorens<sup>3</sup>, Javier Amado<sup>4</sup>.

<sup>1</sup>SERIDA, Servicio Regional de Investigación y Desarrollo Agroalimentario. Centro de Biotecnología Animal, Deva, Asturias, Spain

<sup>2</sup>Parque Científico de Madrid, Unidad de Genómica, Campus de Cantoblanco, Madrid

<sup>3</sup>Biotechvana, Paterna, Valencia, Spain

<sup>4</sup>LSAPA, Laboratorio de Sanidad Animal del Principado de Asturias

11:00-11:15 **1.6 CHARACTERIZING RESPONSES OF IMMUNE CELL SUBSETS FROM M. PARATUBERCULOSIS (MAP) TEST POSITIVE AND TEST NEGATIVE COWS**



**FROM COMMERCIAL HERDS TO MAP ANTIGEN STIMULATION IN VITRO.**

Paul Coussens, Meredith C. Frie

11:15-11:30 **1.7 COMPARISON OF SHEEP, GOATS, AND CALVES AS INFECTION MODELS FOR MYCOBACTERIUM AVIUM SUBSP. PARATUBERCULOSIS.** Judith Stabel<sup>1</sup>,

John P. Bannantine<sup>1</sup>, Jesse M. Hostetter<sup>2</sup>.

<sup>1</sup>USDA-ARS-National Animal Disease Center

<sup>2</sup>Iowa State University

11:30-11:45 **1.8 LDLR FACILITATES MYCOBACTERIAL INFECTION-INDUCED CHANGES TO HOST LIPID METABOLISM.** Matt D. Johansen<sup>1</sup>, Auriol C. Purdie<sup>1</sup>, Kumudika de Silva<sup>1</sup>, Karren M. Plain<sup>1</sup>, Stefan H. Oehlers<sup>2</sup>.

<sup>1</sup>University of Sydney

<sup>2</sup>Centenary Institute

11:45-12:00 **1.9 EFFECTS OF VACCINATION ROUTE ON THE IMMUNE RESPONSE IN THE RABBIT PARATUBERCULOSIS INFECTION MODEL.** Natalia Elguezabal<sup>1</sup>, Iraia Ladero<sup>1</sup>, Raket Arrazuria<sup>1</sup>, Elena Molina<sup>1</sup>, Miguel Fernández<sup>2</sup>, Marcos Royo<sup>2</sup>, Joseba Garrido<sup>1</sup>, Ramón Juste<sup>1</sup>, Valentín Pérez<sup>2</sup>, Natalia Elguezabal<sup>1</sup>.

<sup>1</sup>NEIKER-Instituto Vasco de Investigación y Desarrollo Agrario, Animal Health Department, Derio, Bizkaia, Spain

<sup>2</sup>Departamento de Sanidad Animal, Instituto de Ganadería de Montaña (CSIC-Universidad de León), Facultad de Veterinaria, C/ Profesor Pedro Cármenes s/n, 24071 León

12:00-12:15 **1.10 CYTOKINE GENE EXPRESSION PROFILES IN THE BLOOD OF CLINICAL AND NON-CLINICAL SHEEP AND GOATS INFECTED WITH MYCOBACTERIUM AVIUM SUBSPECIES PARATUBERCULOSIS.** Ganesh Gangaram Sonawane<sup>1</sup>,

Bhupendra Nath Tripathi<sup>1</sup>, L.L.L. Prince<sup>2</sup>, Rajendra Kumar Meena<sup>1</sup>.

<sup>1</sup> ICAR-National Research Centre on Equines, Hisar-125001(Haryana), India

<sup>2</sup> ICAR - Directorate of Poultry Research, Rajendranagar, Hyderabad 500 030 (Telangana), India



12:15-12:30 **1.11 CONTROL OF JOHNE'S DISEASE IN A NEW ZEALAND DAIRY HERD USING TEST AND CULLING.** Frank Griffin<sup>1</sup>, Rory O'Brien<sup>1</sup>, Simon Liggett<sup>1</sup>, Andrew Bates<sup>2</sup>.

1 Disease Research Limited, Invermay Agricultural Centre, Mosgiel, New Zealand

2 Vetlife, Centre for Dairy Excellence, Geraldine, New Zealand

12:30-12:45 **1.12 RECOMBINANT SECRETORY PROTEINS BASED 'COCKTAIL ELISA' TO DIFFERENTIATE BETWEEN INFECTED AND VACCINATED BOVINES AGAINST MYCOBACTERIUM AVIUM SUBSPECIES PARATUBERCULOSIS.** Kundan Kumar Chaubey<sup>1</sup>, Shoor Vir Singh<sup>1</sup>, Rinkoo Devi Gupta<sup>2</sup>, Kirti Dua<sup>3</sup>, Shukriti Sharma<sup>3</sup>, Niranjana Sahoo<sup>4</sup>.

<sup>1</sup>Animal Health Division, Central Institute for Research on Goats, Makhdoom, PO- Farah, Mathura, UP, India

<sup>2</sup>Department of Life Sciences and Biotechnology, South Asian University, New Delhi, India

<sup>3</sup>Department of Epidemiology and Preventive Medicine, College of Veterinary Science and Animal Husbandry, GADVASU, Ludhiana, Punjab, India

<sup>4</sup>Department of Epidemiology and Preventive Medicine, College of Veterinary Science and Animal Husbandry, OUAT, Bhubaneswar, Odisha, India

13:00-14:45 Lunch Time

**2<sup>nd</sup> Oral Session. Moderators: Natalia Elguezabal & David Kelton (14:45-16:00)**

14:45-15:00 **1.13 IMMUNE RESPONSE INDUCED BY A LOCAL STRAIN OF MYCOBACTERIUM AVIUM SUBSP. PARATUBERCULOSIS IN ANIMAL MODELS.** María Alejandra Colombatti Olivieri<sup>1</sup>, Roberto Damian Moyano<sup>1</sup>, María José Gravisaco<sup>1</sup>, Gabriel Eduardo Traveria<sup>2</sup>, María de la Paz Santangelo<sup>1</sup>, María Isabel Romano<sup>1</sup>.

<sup>1</sup>Instituto de Biotecnología, INTA Castelar, Buenos Aires, Argentina



<sup>2</sup>Centro de Diagnostico e Investigaciones Veterinarias (CEDIVE) de la Facultad de Ciencias Veterinarias, Universidad de La Plata, Buenos Aires, Argentina

15:00-15:15 **1.14 MAP-SPECIFIC VOLATILE ORGANIC COMPOUND PROFILE: A COMPARATIVE ANALYSIS OF THREE DIFFERENT IN VITRO STUDIES.** Anne Küntzel<sup>1</sup>, Sina Fischer<sup>1</sup>, Andreas Bergman<sup>2</sup>, Peter Oertel<sup>2</sup>, Philip Trefz<sup>2</sup>, Wolfram Miekisch<sup>2</sup>, Jochen Schubert<sup>2</sup>, Petra Reinhold<sup>1</sup>, Heike Köhler<sup>1</sup>

<sup>1</sup>Friedrich-Loeffler-Institut, Institute of Molecular Pathogenesis, Germany

<sup>2</sup>University of Rostock, Department of Anesthesia and Intensive Care, Germany

15:15-15:30 **1.15 EX VIVO VACCINATION WITH A PLGA/MPLA NANOPARTICLE VECTORED A 35 KDA MAJOR MEMBRANE PROTEIN FROM MYCOBACTERIUM AVIUM PARATUBERCULOSIS ELICITS KILLING OF INTRACELLULAR BACTERIA BY CD8 T CELLS.** Cleverson D Souza<sup>1</sup>, Gaber S. Abdellrazeq<sup>1</sup>, Mahmoud M. Elnaggar<sup>2</sup>, John P. Bannantine<sup>3</sup>, Julianne Hwang<sup>4</sup>, William C. Davis<sup>2</sup>.

<sup>1</sup>Washington State University, Faculty Veterinary Medicine, Alexandria University, Egypt

<sup>2</sup>Vet Micro/Pathol, Washington State University, Pullman, WA, U.S., Faculty Veterinary Medicine, Alexandria University, Egypt

<sup>3</sup>National Animal Disease Center, USDA-Agricultural Research Service, Ames, US.

<sup>4</sup>Veterinary Clinical Sciences, Washington State University, Pullman, US

15:30-15:45 **1.16 DISEASE STATE INFLUENCES THE PRESENCE OF MACROPHAGES AND MYCOBACTERIUM AVIUM SUBSP. PARATUBERCULOSIS IN BOVINE INTESTINAL TISSUE.** Caitlin Jenvey<sup>1</sup>, Jesse M. Hostetter<sup>1</sup>, Adrienne L. Shircliff<sup>2</sup>, John P. Bannantine<sup>2</sup>, Judith R. Stabel<sup>2</sup>.

<sup>1</sup>Iowa State University

<sup>2</sup>USDA-ARS-National Animal Disease Center





**14<sup>th</sup> INTERNATIONAL  
COLLOQUIUM OF PARATUBERCULOSIS**  
RIVIERA MAYA, MEXICO, JUNE 4<sup>th</sup>-8<sup>th</sup>, 2018



International Association for  
Paratuberculosis

15:45-16:00 **1.17 MACROPHAGE ANALYSIS TO IDENTIFY FUNCTIONAL GENETIC MARKERS ASSOCIATED WITH JOHNE'S DISEASE.** Nathalie Bissonnette<sup>1</sup>, Jean-Simon Brouard<sup>1</sup>, Olivier Ariel<sup>1</sup>, Eveline Ibeagha-Awemu<sup>1</sup>, Filippo Miglior<sup>2</sup>.

<sup>1</sup>Agriculture and Agri-Food Canada, Sherbrooke Research and Development Centre, Sherbrooke, QC, Canada

<sup>2</sup>Centre for Genetic Improvement of Livestock, University of Guelph, Canadian Dairy Network, Guelph, ON, Canada

16:00-16:35 Coffee break

16:35-19:00 Poster Session