Preliminary Program

December 12, 2016

Opening Ceremony

Keynote Presentation

18:00-18:15  Welcome Address  
Monique Eloït, Directeur Général  
World Organisation for Animal Health (OIE)

18:15-18:30  Program Review – Objectives and Expected Outcomes  
Cyril G. Gay, National Program Leader, Animal Production and Protection,  
Agricultural Research Service, USDA, Beltsville, MD, USA

18:30-19:00  Keynote Presentation  
New approaches to address antimicrobial resistance in animals  
Harald Brüssow, Senior Research Scientist & Expert, Nestle Research Centre  
Nutrition and Health Research, Host-Microbe Interaction, Switzerland

19:00-20:00  Reception
December 13, 2016

Session 1
Vaccines

Chairs: Filip Van Immerseel, Faculty of Veterinary Medicine, Ghent University, Belgium
Karin Hoelzer, Officer, Health Programs, The Pew Charitable Trusts, USA

09:00-09:30 Prioritization of diseases for which vaccines could reduce antimicrobial use in animals
Elisabeth Erlacher-Vindel, Head of the Science and New Technologies Department, World Organisation for Animal Health (OIE)

09:30-10:00 Challenges and solutions for improved intestinal vaccinations
Eric Cox, Laboratory of Immunology, Faculty of Veterinary Medicine, Ghent University, Belgium

10:00-10:15 Heat stable Bacillus Spores as Vaccines
Simon L. Cutting, SporeGen Ltd, Royal Holloway University of London, Egham, Surrey, United Kingdom

10:15-10:30 Benefits of a Herpesvirus of Turkey vector vaccine for Infectious Bursal Disease (HVT-IBD) in control of immuno-depression in broiler chickens and decrease of use of antibiotic medication
Stephane Lemiere, Merial S.A.S. Avian Global Technical Services 29 avenue Tony Garnier, Lyon, France

10:30-11:15 Coffee Break: Poster Session

11:15-11:30 Recombinant orally effective vaccine platforms expressing putative conserved antigens for reduced antimicrobial usage in poultry
Lisa R. Bielke, The Ohio State University, Department of Animal Sciences, Columbus, Ohio, USA

11:30-11:45 Opportunities and problems in vaccination against opportunistic pathogens: The example of Clostridium perfringens in calves and chickens
Evy Goossens, Department of Pathology, Bacteriology and Poultry Diseases, Faculty of Veterinary Medicine, Ghent University, Merelbeke, Belgium

11:45-12:00 Pasteurellaceae oral vaccine vector for economically important diseases of cattle
Robert Briggs, National Animal Disease Center, Agricultural Research Service, USDA, Ames, Iowa, USA
12:00-12:15  Reduction of antibiotic treatments in broilers by the use of a live Coccidiosis vaccine in rotation with anticoccidial feed
Jesus Rubio, Poultry Business Unit, HIPRA, Spain

12:15-13:00  Session 1 Expert Panel

Elisabeth Erlacher-Vindel, OIE, France
Eric Cox, Ghent University, Belgium
Simon L. Cutting, SporeGen Ltd, United Kingdom
Kemel Karaca, Elanco, USA
Alicia Urniza, Zoetis, Spain

13:00-14:00  Lunch: Poster Session
Session 2
Microbial-derived products

Chairs: Bruce S. Seal, Oregon State University Cascade, Bend, Oregon, USA
Djamel Drider, Charles Violette Institute, Université de Lille, INRA, Lille, France

14:00-14:30 Exploiting CRISPR-Cas nucleases to produce sequence-specific antimicrobials
David Bikard, Institut Pasteur, Paris, France

14:30-15:00 Probiotic product development with fecal microbiome transplants as alternatives to antibiotics in broiler chickens
Brian Oakley, College of Veterinary Medicine, Western University of Health Sciences, USA

15:00-15:30 Novel antimicrobial compounds from microbial sources
Joseph O. Rich, U.S Department of Agriculture, Agricultural Research Service, National Center for Agricultural Utilization Research, Renewable Product Technology, Peoria, IL, USA

15:30-16:15 Coffee Break: Poster Session

16:15-16:45 Bacteriocins as alternatives to antibiotics: the case of enterocins DD14 and DD28
Djamel Drider, Institut Charles Viollette - Université de Lille, France

16:45-17:15 Artilysins - Novel antibacterial tools for industrial animal protein production
Stefan Miller, Lysando AG, Triesenberg, Liechtenstein

17:15-17:45 Microbial-ecology guided discovery of antibiofilm compounds from marine sponges
Jason Kwan, Division of Pharmaceutical Sciences, School of Pharmacy, University of Wisconsin–Madison, Madison, Wisconsin, USA

17:45-18:30 Session 2 Expert Panel

David Bikard, Institut Pasteur, France
Brian Oakley, Western University of Health Sciences, USA
Joseph Rich, Agricultural Research Service, USDA, USA
Stefan Miller, Lysando AG, Liechtenstein
Estelle Devillard, Adisseo, France
Gérard Bertin, European Probiotic Association, France
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Session 3
Phytochemicals

Chairs: Hyun Lillehoj, Agricultural Research Service, USDA, Beltsville, Maryland, USA
       Yanhong Liu, Assistant Professor, University of California, Davis, California, USA

09:00-09:30  Dietary phytonutrients as alternatives-to-antibiotics in agricultural animals: Mode of action in modulating cross-talks among immunity, disease resistance and gut microbiota
             Hyun Lillehoj, Animal Biosciences and Biotechnology Laboratory, Agricultural Research Service, USDA, Beltsville, Maryland, USA

09:30-10:00  Dietary phytonutrients enhance disease resistance in swine.
             Yanhong Liu, University of California, Davis, USA

10:00-10:30  Phytonutrients as alternative feeding strategy to improve performance of cattle without using an antibiotics.
             Sergio Calsamiglia, Animal Nutrition and Welfare Service, Universitat Autònoma de Barcelona, Spain

10:30-11:00  Coffee Break: Poster Session

11:00-11:30  Impact of dietary tannins on rumen microbiota in bovine
             Mariano E. Fernández Miyakawa, Instituto de Patobiología, Centro Nacional de Investigaciones Agropecuarias, Instituto Nacional de Tecnología Agropecuaria, Buenos Aires, Argentina

11:30-12:00  Meta-analysis of broiler research shows that Varium™ results in feed efficiency equal to antibiotics.
             Fang Chi, Amlan International, Chicago, USA

12:00-12:45  Session 3 Expert Panel
             Hyun Lillehoj, Agricultural Research Service, USDA, USA
             Yanhong Liu, University of California, USA
             Sergio Calsamiglia, Universitat Autònoma de Barcelona, Spain
             Ron Cravens, Amlan International, USA
             Mariano E. Fernández Miyakawa, Instituto Nacional de Tecnología, Argentina
             Jamie G. Nickerson, Aviagen Inc., USA

12:45-14:00  Lunch: Poster Session
Session 4
Immune-related Products

Chairs: Henk P. Haagsman, Professor of Molecular Host Defense, Chair of the Department of Infectious Diseases and Immunology, Utrecht University, The Netherlands
Peter M Heegaard, Professor of Innate Immunology, Denmark Technical University (DTU), National Veterinary Institute, Denmark

14:00-14:30 Innate defense mechanisms and passive immunity
Peter M. Heegaard, Professor of Innate Immunology, Denmark Technical University (DTU), National Veterinary Institute, Denmark

14:30-15:00 Immunomodulators derived from host defense peptides
Albert van Dijk, Department of Infectious Diseases and Immunology, Utrecht University, The Netherlands

15:00-15:30 Egg shell membrane improves immunity of post hatch poultry: a paradigm for nutritional immunomodulation
Narayan C. Rath, Poultry Production and Products Safety Research, Fayetteville, Arkansas, USA

15:30-16:15 Coffee Break: Poster Session

16:15-16:35 Green algal sulfated polysaccharides: a natural alternative to antibiotics via modulation of the intestinal immune response
Mustapha Berri, ISP, INRA, Université François Rabelais de Tours, Nouzilly, France

16:35-16:55 Maintenance of vascular integrity via ARF6-GTP inhibition protects mice from MDR Acinetobacter infection
Ashraf S. Ibrahim, LA Biomed. Research Institute at Harbor-UCLA Medical Center, Torrance, California, USA

16:55-17:15 Swine plasma immunoglobulins for prevention and treatment of post-weaning diarrhea
Chris Juul Hedegaard, National Veterinary Institute, Technical University of Denmark, Frederiksberg, Denmark

17:15-18:00 Session 4 Expert Panel

Peter Heegaard, Denmark Technical University, Denmark
Henk Haagsman, Utrecht University, The Netherlands
Narayan Rath, Agricultural Research Service, USDA, USA
Mustapha Berri, Université François Rabelais de Tours, France
Raksha Tiwari, Zoetis, USA
Robert Zolynas, Bayer Animal Health GmbH, USA
Stuart Reeves, Diamond V, USA
December 15, 2016
Session 5
Innovative Drugs, Chemicals, and Enzymes

Chair: Chengbo Yang, Assistant Professor, Nutrition and Nutritional Biochemistry, Department of Animal Science, University of Manitoba, Canada
Jian Peng, Professor, Huazhong Agricultural University, China

09:00-09:30 Non-resistance-inducing antibacterial polymers and nanomedicines
Song Liu, Associate Professor, Department of Biosystems Engineering, University of Manitoba, Canada

09:30-10:00 Bacterial anti-virulence strategy as an alternative to antibiotics
Damien Maura, Department of Surgery, Department of Microbiology and Immunobiology, Harvard Medical School and Massachusetts General Hospital, Shriners Hospitals for Children Boston, Boston, Massachusetts, USA

10:00-10:30 Coffee Break: Poster Session

10:30-10:45 Cationic amphiphilic non-hemolytic synthetic polymers as potential agents to combat bacteria with antibiotics resistance
Nanloh Yang, Center for Engineered Polymeric Materials and Chemistry, City University of New York, USA

10:45-11:00 Reducing antimicrobial dependence through feed additives that bolster immune readiness, disease resistance, and production performance in farmed fish
Benjamin Beck, United States Department of Agriculture - Agricultural Research Service, Aquatic Animal Health Research Unit, Auburn, Alabama USA

11:00-11:15 Development of technique to circularly produce enzyme, probiotics and oligosaccharide, and solutions to replace antibiotics in a low-cost way
Nicole Zhou, Wuhan Sunhy Biology Co, China

11:15-12:00 Session 5 Expert Panel

Chengbo Yang, University of Manitoba, Canada
Jian Peng, Huazhong Agricultural University, China
Song Liu, University of Manitoba, Canada
Xianfeng Peng, Guangzhou Insighter Biotechnology Co., Ltd., China
Joris Michiels, Ghent University, Belgium
Benjamin Beck, Agricultural Research Service, USDA, USA
Sam Barringer, Diamond V, USA
Laurence Rahme, Harvard Medical School, USA

12:00-13:00 Lunch: Poster Session
Session 6
Regulatory Pathways to Enable the Licensing of Alternatives to Antibiotics and Issues and Opportunities from Funders’ Perspective

        Cindy Burnsteel, Office of New Animal Drug Evaluation, Center for Veterinary Medicine, FDA, Silver Spring, MD, USA

13:00-13:30  EU approach to authorization of novel technologies with particular emphasis on alternatives to antibiotics
             Faye Ioannou, European Medicine Agency, London, EU

13:30-14:00  FDA’s innovation initiative to evaluate novel emerging technologies and international cooperation in the area of innovation
             Cindy Burnsteel, Office of New Animal Drug Evaluation, Center for Veterinary Medicine, FDA, Silver Spring, MD, USA

14:00-14:30  Regulation on the use of antibiotics and authorization of herbal medicines in China
             Shixin Xu, China Institute for Veterinary Drug Control, Ministry of Agriculture, China

14:30-15:00  Do innovative solutions require novel regulatory paradigms?
             Patricia Logie, Advisor, Global Food Animal Innovation, Elanco, UK

15:00-15:30  The sequence of success: antibiotic alternative development from the startup perspective
             Lucia Mokres, Chief Medical Officer Epibiome, USA

15:30-16:00  Coffee Break: Poster Session

16:00-16:45  Session 6 Expert Panel: Regulatory Pathways
             Faye Ioannou, European Medicines Agency, London, EU
             Jean-Pierre Orand, French Agency for Veterinary Medicinal Products, France
             Cindy Burnsteel, Center for Veterinary Medicine, FDA, USA
             Carel du Marchie Sarvaas, HealthforAnimals, Belgium
             Su-San Chang, Pingtung Agricultural Biotechnology Park, Council of Agriculture, Taiwan

16:45-17:30  Session 6 Expert Panel: Issues from Funders’ Perspective
             Jean-Charles Cavitte, European Commission, EU
             Gary Sherman, National Institute of Food and Agriculture (NIFA), USA
             Dennis Dixon, National Institutes of Health (NIH), USA
             Luke Dalton, STAR-IDAZ, United Kingdom
             Karin Hoelzer, The Pew Charitable Trusts, USA
             Stacy Sneeringer, USDA-ERS, USA
Conclusions and next steps

Cyril G. Gay, National Program Leader, Animal Production and Protection, Agricultural Research Service, USDA, Beltsville, MD, USA