



## CONFERENCE 2017, Dublin, Ireland

### Genetics of the Immune Response and Disease Resistance

STANDING COMMITTEES / WORKSHOPS

Information will be posted online

Organised by a standing committee **yes**

Date and meeting time: July 18, 2017, 9:00-13:00

Chair, name and contact email: Huaijun Zhou, [hzhou@ucdavis.edu](mailto:hzhou@ucdavis.edu)

#### Agenda / programme attached

9:00 AM	71	<b>Enhanced genetic disease control with selection for low susceptibility and infectivity.</b> S. Tsairidou*, O. Anacleto, J. A. Woolliams, and A. Doeschl-Wilson, <i>Roslin Institute, Edinburgh, UK.</i>
9:15 AM	73	<b>Genetic basis for resistance to avian influenza in commercial egg layer chicken lines.</b> W. Drobik-Czwaro* <sup>1</sup> , A. Wolc <sup>2,3</sup> , J. Fulton <sup>3</sup> , T. Jankowski <sup>4</sup> , J. Arango <sup>3</sup> , P. Settar <sup>3</sup> , N. O'Sullivan <sup>3</sup> , and J. Dekkers <sup>2</sup> , <sup>1</sup> <i>Department of Animal Genetics and Breeding, Faculty of Animal Science, Warsaw University of Life Sciences, Warsaw, Poland;</i> <sup>2</sup> <i>Department of Animal Science, Iowa State University, Ames, IA, USA;</i> <sup>3</sup> <i>Hy-Line International, West Des Moines, IA, USA;</i> <sup>4</sup> <i>NutriBiogen, Poznan, Poland.</i>
9:30 AM	74	<b>Integrated network analysis for mRNAs and miRNAs expressed in PRRSV vaccinated peripheral blood mononuclear cells of pigs.</b> M. A. Islam <sup>1</sup> , C. Neuhoff* <sup>1</sup> , S. Rony <sup>1</sup> , C. Große-Brinkhaus <sup>1</sup> , M. J. Uddin <sup>2</sup> , M. Hölker <sup>1</sup> , D. Tesfaye <sup>1</sup> , E. Tholen <sup>1</sup> , M. J. Pröll <sup>1</sup> , and K. Schellander <sup>1</sup> , <sup>1</sup> <i>Institute of Animal Science, Animal Breeding and Husbandry group, University of Bonn, Endenicher Allee 15, Bonn, Germany;</i> <sup>2</sup> <i>School of Veterinary Science, The University of Queensland, Gatton campus, QLD, Australia.</i>
9:45 AM	75	<b>Mammary epithelial cells, rather than professional immune cells dictate the pathogen species-specific immune reaction of the udder.</b> J. Hehl* <sup>1</sup> , M. Koy <sup>2</sup> , A. Berthold <sup>1</sup> , H.-J. Schubert <sup>2</sup> , M. Weinert <sup>3</sup> , S. Engelmann <sup>3</sup> , C. Kühn <sup>1</sup> , H.-M. Seyfert <sup>1</sup> , and J. Günther <sup>1</sup> , <sup>1</sup> <i>Leibniz Institute for Farm Animal Biology (FBN), Institute for Genome Biology, Dummerstorf, Germany;</i> <sup>2</sup> <i>Immunology Unit, University of Veterinary Medicine Foundation, Hannover, Germany;</i> <sup>3</sup> <i>Institute of Microbiology, Technical University Braunschweig, Braunschweig, Germany.</i>
10:00 AM	76	<b>Integrative network genomics of the bovine host response to infection with <i>Mycobacterium bovis</i>.</b> T. J. Hall* <sup>1</sup> , K. E. Killick <sup>1,2</sup> , M. P. Mullen <sup>3</sup> , K. E. McLoughlin <sup>1</sup> , N. C. Nalpas <sup>4</sup> , I. W. Richardson <sup>5</sup> , D. A. Magee <sup>1</sup> , C. N. Correia <sup>1</sup> , J. A. Browne <sup>1</sup> , H. M. Vordermeier <sup>6</sup> , B. Villarreal-Ramos <sup>6</sup> , D. P. Berry <sup>7</sup> , E. Gormley <sup>8</sup> , S. V. Gordon <sup>2,8</sup> , D. E. MacHugh <sup>1,2</sup> , <sup>1</sup> <i>Animal Genomics Laboratory, UCD School of Agriculture and Food Science, University College Dublin, Belfield, Dublin, Ireland;</i> <sup>2</sup> <i>UCD Conway Institute of Biomolecular and Biomedical Research, University College Dublin, Belfield, Dublin, Ireland;</i> <sup>3</sup> <i>Department of Life and Physical Sciences, Athlone Institute of Technology, Athlone, Ireland;</i> <sup>4</sup> <i>Quantitative Proteomics and Proteome Centre Tübingen, Interfaculty Institute for Cell Biology, University of Tübingen, Tübingen, Germany;</i> <sup>5</sup> <i>IdentiGEN Ltd., Blackrock Business Park, Blackrock, Dublin, Ireland;</i> <sup>6</sup> <i>Animal and Plant Health Agency (APHA), Weybridge, Addlestone, United Kingdom;</i> <sup>7</sup> <i>Animal and Grassland Research and Innovation Centre, Teagasc, Moorepark, Fermoy, Cork, Ireland;</i> <sup>8</sup> <i>UCD School of Veterinary Medicine, University College Dublin, Belfield, Dublin, Ireland.</i>
10:15 AM	77	<b>Identification of putative key transcription factors in canine macrophages after infection with <i>Leishmania infantum</i> and stimulation with a toll-like receptor-2 agonist.</b> L. Solano-Gallego <sup>2</sup> , S. Montserrat <sup>2</sup> , F. Mayer <sup>1</sup> , A. Castello <sup>1</sup> , L. Alborch <sup>2</sup> , S. Heath <sup>3</sup> , A. Esteve-Codina <sup>3</sup> , J. Gomez-Garrido <sup>3</sup> , R. A. Cigliano <sup>4</sup> , and A. Clop* <sup>1</sup> , <sup>1</sup> <i>Centre for Research in Agricultural Genomics (CRAG) CSIC-IRTA-UAB-UB, Cerdanyola del Valles, Catalonia, Spain;</i> <sup>2</sup> <i>Universitat Autònoma de</i>

		<i>Barcelona, Cerdanyola del Valles, Catalonia, Spain;</i> , <sup>3</sup> <i>Centre Nacional d'Anàlisi Genòmica CNAG-CRG, Barcelona, Catalonia, Spain;</i> , <sup>4</sup> <i>Sequentia Biotech, Barcelona, Catalonia, Spain.</i>
10:30 AM	78	<b>Analysis of the genomic regions associated to response to coccidiosis caused by <i>Eimeria maxima</i> in broiler chickens.</b> B. Bed'Hom* <sup>1</sup> , M. H. Pinard-Van der Laan <sup>1</sup> , R. Hawken <sup>2</sup> , and H. Edin <sup>1</sup> , <sup>1</sup> <i>INRA, Jouy-en-Josas, France;</i> , <sup>2</sup> <i>Cobb-Vantress Inc, Siloam Springs, AR, USA.</i>
10:45 AM	79	<b>Genetic individual variability of vaccine responses in pigs.</b> F. Blanc* <sup>1</sup> , G. Lemonnier <sup>1</sup> , J. Leplat <sup>1,2</sup> , E. Bouguyon <sup>3</sup> , Y. Billon <sup>4</sup> , J. Estelle <sup>1</sup> , and C. Rogel-Gaillard <sup>1</sup> , <sup>1</sup> <i>GABI, INRA, AgroParisTech, Université Paris-Saclay, Jouy-en-Josas, France;</i> , <sup>2</sup> <i>CEA, DRF/IRCM/SREIT/LREG, Jouy-en-Josas, France;</i> , <sup>3</sup> <i>VIM-INRA-Université Paris-Saclay, Jouy-en-Josas, France;</i> , <sup>4</sup> <i>GenESI, INRA, Surgères, France.</i>
11:00 AM		<b>Coffee/Tea Break.</b>
11:30 AM	80	<b>QTLs associated with resistance to MAP infection in Holstein-Friesian cattle.</b> S. Mallikarjunappa* <sup>1,3</sup> , M. Sargolzaei <sup>4</sup> , K. Meade <sup>2</sup> , N. Karrow <sup>3</sup> , and S. Pant <sup>1</sup> , <sup>1</sup> <i>Graham Centre for Agricultural Innovation, Charles Sturt University, Wagga Wagga, NSW, Australia;</i> , <sup>2</sup> <i>Teagasc Animal and Bioscience Research Department, Grange, Co. Meath, Ireland;</i> , <sup>3</sup> <i>Department of Animal Biosciences, University of Guelph, Guelph, ON, Canada;</i> , <sup>4</sup> <i>The Semex Alliance, Guelph, ON, Canada.</i>
11:45 AM	81	<b>The association of copy number variations with tick count in South African Nguni cattle.</b> L. Pickering* <sup>1</sup> , K. Dzama <sup>1</sup> , F. Muchadeyi <sup>2</sup> , and M. Wang <sup>2</sup> , <sup>1</sup> <i>Animal Science Department, University of Stellenbosch, Stellenbosch, Western Cape, South Africa;</i> , <sup>2</sup> <i>Agriculture Research Council Biotechnology Platform, Pretoria, Gauteng, South Africa.</i>
12:00 PM	82	<b>Investigating genetic control of resistance to avian pathogenic <i>Escherichia coli</i> colonization in chickens.</b> M. Monson* <sup>1</sup> , M. Kaiser <sup>1</sup> , A. Wolc <sup>1,2</sup> , and S. Lamont <sup>1</sup> , <sup>1</sup> <i>Iowa State University, Ames, IA, USA;</i> , <sup>2</sup> <i>Hy-Line International, Dallas Center, IA, USA.</i>
12:15 PM	84	<b>Genome-wide association study for monocyte count at day 7 post-challenge with bovine viral diarrhea virus in F<sub>2</sub> and F<sub>3</sub> Nellore-Angus halfblood steers.</b> K. M. S. Davila* <sup>1</sup> , A. D. Herring <sup>1</sup> , J. E. Sawyer <sup>1</sup> , J. F. Ridpath <sup>2,3</sup> , and C. A. Gill <sup>1</sup> , <sup>1</sup> <i>Texas A&amp;M University, College Station, TX, USA;</i> , <sup>2</sup> <i>National Animal Disease Center, Ames, IA, USA;</i> , <sup>3</sup> <i>Ridpath Consulting, Ames, IA, USA.</i>
12:19 PM	85	<b>Polymorphism in TLR2 in different dairy cattle breeds suggests immune functional modulation.</b> M. Bartens*, K. Tombacz, A. Gibson, and D. Werling, <i>Department of Pathobiology and Population Sciences, Royal Veterinary College, University of London, Hatfield, UK.</i>
12:23 PM	86	<b>Delineating Indian native cattle-specific allelic variants and haplotypes in lactoferrin gene: A potential candidate for disease resistance.</b> A. Sharma* <sup>1,2</sup> , M. Sodhi <sup>2</sup> , P. Jain <sup>1</sup> , M. Kumar <sup>2</sup> , and M. Mukesh <sup>2</sup> , <sup>1</sup> <i>University Institute of Engineering &amp; Technology, Kurukshetra, Haryana, India;</i> , <sup>2</sup> <i>National Bureau of Animal Genetics Resources, Karnal, Haryana, India.</i>
12:27 PM		<b>Workshop Business Meeting.</b>

**Number of participants at meeting: 150**

**Summary of the meeting** including votes, decisions taken and plans for future conferences

We thank the speakers for excellent presentations and attendees for stimulating questions and discussions.

The Genetics of the Immune Response and Disease Resistance standing committee strongly supports continued funding opportunities for Workshop Keynote speakers in future conferences as a valuable tool for enhancing workshop quality and augmenting the overall ISAG conference

experience for attendees. This support was not available at this conference. The standing committee would welcome clear guidelines to help compete for future support.

Our Lightning Round to highlight contributions from early career stage investigators was a well-received success. We used bursary eligible status as a useful measure of early career stage, and we thank the conference organizers for continuing to make this information available to facilitate Lightning Round invitations.

We appreciate the conference organizers making efforts to schedule workshops to avoid time overlaps between workshops of interest to a common group of participants within ISAG. Unfortunately, this workshop still overlapped with a couple of other related workshops such as Avian, MHC which negatively impacts attendance.

We thank outgoing committee member and past chair Dr. Stephen White for his service over the last several conference cycles.

#### **Committee members** (the new committee)

Chair	term of service	E mail address:
Huaijun Zhou	2019	hzhou@ucdavis.edu
Other members		
Graham Plastow (Vice Chair)	2023	plastow@ualberta.ca
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