

## **Animal Genetics and Diseases 8-10 May 2019**

**Wellcome Genome Campus,  
Hinxton, Cambridge, UK**

### ***Draft Conference Programme***

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### **Wednesday, 8 May 2019**

- 12:00 - 13:00      **Registration with lunch**
- 13:00 - 13:10      **Welcome and introduction**  
*Programme Committee: Susan Lamont, Iowa State University, USA*
- 13:10 - 14:10      **Keynote lecture I**  
*Chair: Mark Fife, The Pirbright Institute, UK*
- Probiotics and commensals modulate gut reactions and immunity to rotavirus in a neonatal piglet model  
*Linda Saif*  
*OARDC/The Ohio State University, USA*
- 14:10 - 15:40      **Session I: Genetics of immune response**  
*Chair: Susan Lamont, Iowa State University, USA*
- 14:10    Probing mechanisms of porcine reproductive and respiratory syndrome (PRRS) resistance  
*Joan Lunney*  
*USDA-ARS-Beltsville, USA*
- 14:40    Generalists and specialists: a new view of how MHC molecules fight infectious disease  
*Jim Kaufman*  
*University of Cambridge, UK*
- 15:10    Short talk selected from abstracts
- 15:25    Short talk selected from abstracts

- 15:40 - 16:10      **Afternoon tea**
- 16:10 - 17:40      **Session 2: New technologies in breeding**  
*Chair: Helen Sang, The Roslin Institute, UK*
- 16:10    Genome editing for disease resistance in livestock  
*Christine Tait-Burkhard*  
*The Roslin Institute, University of Edinburgh, UK*
- 16:40    Breeding for improved health in layer chickens – challenges and opportunities  
*Anna Wolc*  
*Iowa State University, USA*
- 17:10    Short talk selected from abstracts
- 17:25    Short talk selected from abstracts
- 17:40 - 18:10      **Lightning talks**  
*Chair: Mark Fife, The Pirbright Institute, UK*
- 18:10 - 19:40      **Poster session I (odd numbers) with drinks reception**
- 19:40                **Buffet Dinner**

## Thursday, 9 May 2019

- 09:00 - 10:30      **Session 3: Quantitative genetics applied to disease**  
*Chair: Leif Andersson, Uppsala University, Sweden*
- 09:00    New genetic and genomic models for mastitis in dairy cattle  
*Dirk Jan de Koning*  
*Swedish University of Agricultural Sciences, Sweden*
- 09:30    Breeding for disease resistance in aquaculture species  
*Anna Sonesson*  
*Nofima, Norway*
- 10:00    Short talk selected from abstracts
- 10:15    Short talk selected from abstracts
- 10:30 - 11:00      **Morning coffee**
- 11:00 - 12:30      **Session 4: Epidemiology**  
*Chair: Alison Mather, Quadram Institute Bioscience, UK*
- 11:00    Causes and consequences of dog ownership: a register-based approach  
*Tove Fall*  
*Uppsala University, Sweden*

11:30 Quantitative genetics of infectious diseases: integrating Indirect Genetic Effect models with diseases transmission models  
*Piter Bijma*  
*Wageningen University, The Netherlands*

12:00 Short talk selected from abstracts

12:15 Short talk selected from abstracts

12:30 - 14:00

**Lunch**

14:00 - 15:30

**Session 5: Host pathogen interactions: microbiome, mechanisms and modelling**

*Chair: Mark Fife, The Pirbright Institute, UK*

14:00 Novel insights on Salmonella colonization and persistence in poultry intestinal tract  
*Huaijun Zhou*  
*University of California, USA*

14:30 Resistance and resilience of livestock to arbovirus infections  
*Massimo Palmarini*  
*University of Glasgow, UK*

15:00 Short talk selected from abstracts

15:15 Short talk selected from abstracts

15:30 - 16:00

**Afternoon tea**

16:00 - 17:30

**Session 6: Comparative and functional genomics**

*Chair: Anna Sonesson, Nofima, Norway*

16:00 Listening to your inner goddess: a spontaneous SCID pig as an emerging model for cancer and regenerative medicine research  
*Christopher Tuggle*  
*Iowa State University, USA*

16:30 Molecular innovation and conservation across mammalian organ development  
*Margarida C. Moreira*  
*University of Heidelberg, Germany*

17:00 Short talk selected from abstracts

17:15 Short talk selected from abstracts

- 17:30 - 18:00      **Lightning talks**  
*Chair: Helen Sang, The Roslin Institute, UK*
- 18:00 - 19:30      **Poster session 2 (even numbers) with drinks reception**
- 19:30                **Conference dinner**

## **Friday, 10 May 2019**

- 09:00 - 10:00      **Session 7: Pathogen genetics and genomics**  
*Chair: Christopher Tuggle, Iowa State University, USA*
- 09:00    Whole genome sequencing to untangle transmission and antimicrobial resistance of zoonotic pathogens  
*Alison Mather*  
*Quadram Institute Bioscience, UK*
- 09:30    The changing genome of Influenza A Viruses  
*Holly Shelton*  
*The Pirbright Institute, UK*
- 10:00    Short talk selected from abstracts
- 10.15    Short talk selected from abstracts
- 10:30 - 11:00      **Morning coffee**
- 11:00 - 12:00      **Keynote lecture II**  
*Chair: Leif Andersson, Uppsala University, Sweden*
- Insights from understanding genetic drivers of the variable immune response into human disease  
*Julian Knight*  
*University of Oxford, UK*
- 12.00 - 12:10      **Closing remarks**  
*Programme Committee: Helen Sang, The Roslin Institute, UK*
- 12.10 - 12:30      **Take away lunch**
- 12:30                **Coaches depart to Cambridge City Centre and Train Station, and Heathrow Airport via Stansted Airport**