

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

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

Draft Conference Programme

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: TBC
- 12.10 - 12:30 **Take away lunch**
- 12:30 **Coaches depart to Cambridge City Centre and Train Station, and Heathrow Airport via Stansted Airport**