

Comparative and Functional Genomics

Organised by a standing committee yes

Date and meeting time: July 26, 2016; 8.30 – 12.00

Chair, name and contact email: Klaus Wimmers, wimmers@fhn-dummerstorf.de

Agenda / programme attached

Number of participants at meeting: about 150

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

The meeting covered presentations about (1) functional genomics studies related to specific traits and pathways, and (2) studies related to functional genome annotation including an invited talk by Prof. C. Tuggle about the current FAANG (Functional Annotation of Animal Genomes) initiative.

During the business meeting the chair informed about the 'Guidelines for members and chairpersons of Standing Committees' of the ISAG. According to these guidelines, George Liu, Shuhong Zhao and Klaus Wimmers, who served as members of the standing committee since 2008, i.e. for 2 periods of 4 years, resigned from the standing committee. Dr. Fiona McCarthy served in the standing committee since 2012; she was elected for a further term by unanimous vote. Prof. Dr. Christa Kühn, Leibniz Institute for Farm Animal Biology, Dummerstorf, Germany, Prof. Dr. Christina Olivo, Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria, Madrid, Spain and Prof. Dr. Carl J. Schmidt, University of Delaware, Newark, USA volunteered as new members of the standing committee and introduced themselves. They were unanimously elected by the ISAG members participating in the meeting. The scientific program covered 10 presentations (see agenda). The contributions were selected out of more than 160 abstracts (submitted to the topic areas Bioinformatics & Statistical Genetics, Farm Animal Epigenetics and Epigenomics, Functional Genomics, and Structural and Comparative Genomics) by the members of the standing committee based on the rank sum of the individual scores.

The chair closed the session by thanking all presenters and participants for the excellent talks and active contributions to interesting discussions. The current international efforts in genome annotation that is comparable to the human Encode project provides large opportunities for interesting contributions and fruitful discussions in the upcoming Comparative and Functional genomics workshops. The program of the Epigenetics workshop, Sequencing workshop and Comparative and Functional Genomics workshop during the upcoming meetings will be discussed among the committee chairs to become complementary; the workshops will not be held in parallel.

8.30 -8.31	Opening
8.45 – 9.45 (15 min each) functional genomics related to specific traits and pathways	Effect of Rumen Content Exchange on Gene Expression in Rumen Epithelium of Lactating Cows Johanna Vilkki ¹ , Daniel Fischer ¹ , Ilma Tapio ¹ and Kevin J Shingfield ²
	Characterization of Exosomal immune-related microRNAs in colostrum and milk from Average, Low and High Immune Responder Cows Heba Atalla ^{1,2} , Bonnie Mallard ^{1,2} and Niel A Karrow ¹
	The suppression of miR-16 maturation induced by 54-bp insertion activates a novel feedback regulatory via the insulin signaling pathway Xinzheng Jia ^{1,2} , Haiping Xu ¹ , Qinghua Nie ¹ , Xiquan Zhang ¹ and Susan J Lamont ³
	RNA silencing – Targeted transcriptome of porcine alveolar macrophages upon infection with PRRSV of different virulence Sophie Pollet ¹ , Patricia Renson ² , Florence Jaffrezic ¹ , Guillemette Marot ³ , Marco Moroldo ¹ , Jerome Lecardonnel ¹ , Olivier Bourry ² and Elisabetta Giuffra ¹
	Integrated network multi-omics approach highlights muscle late fetal maturation process. V. Voillet, M. Sam Cristobal, L. Lefaucher, L. Liaubet
9.45 – 10.00	Business meeting
10.00 – 10.30	Coffee break
10.30 – 11.00	Invited talk by Chris Tuggle: FAANG genome annotation!
11.00-12.00 (15 min each) Talks related to annotation, genome features etc.	Predicting Regulatory SNPs within Enhancers and Promoters in Cattle Quan Nguyen, Ross L Tellam, James Kijas, William Barendse and Brian P Dalrymple,
	Combining RNA Sequencing Technologies to Annotate the Bovine Genome Darren E Hagen, Deepak R Unni and Christine G Elsik,
	A genomic landscape of mitochondrial DNA insertions in the nuclear pig genome Giuseppina Schiavo ¹ , Orsolya Ivett Hoffmann ² , Anisa Ribani ¹ , Valerio Joe Utzeri ¹ , Marco Ciro Ghionda ¹ , Samuele Bovo ¹ and Luca Fontanesi ¹ ,
	3D nuclear positioning of IGF2 alleles and trans interactions with imprinted genes Yvette Lahbib-Mansais ¹ , Maria Marti Marimon ¹ , Valentin Voillet ¹ , Florence Mompert ¹ , Juliette Riquet ¹ , Sylvain Foissac ¹ , David Robelin ¹ , Hervé Aclouque ¹ , Yvon Billon ² , Nathalie Villa-Vialaneix ³ , Laurence Liaubet ¹ and Martine Bouissou-Matet Yerle ¹

Committee members (the new committee)

<i>Chair</i>	<i>term of service</i>	<i>E mail address:</i>
Fiona McCarthy	2012 – 2019	fionamcc@email.arizona.edu
<i>Other members</i>	<i>term of service</i>	<i>E mail address:</i>
Paolo Zambonelli	2014 – 2017	paolo.zambonelli@unibo.it
Guisheng Liu	2014 – 2017	guisheng_liu1964@yahoo.com
Yangfang Wang	2014 – 2017	yanfangw@hotmail.com
Christa Kühn	2016 –	kuehn@fhn-dummerstorf.de
Christina Ovilo	2016 –	ovilo@inia.es
Carl J Schmidt	2016 –	schmidt@udel.edu