



CONFERENCE 2017, Dublin, Ireland

Microbiomes

Organized by a standing committee: no

Date and meeting time: Tuesday July 18 2017, 2:30 PM – 6:00 PM

Chair, name and contact email: Claire Rogel-Gaillard (claire.rogel-gaillard@inra.fr)

Agenda

- 2:30 PM Introduction.
- 2:35 PM **M Watson**, RD Stewart, A Warr, T Snelling, M Auffret, AW Walker, RJ Wallace, and R Roehe. *Advanced bioinformatics and molecular analysis of whole-genome shotgun metagenomics data from rumen microbiomes reveals remarkable diversity, structure and function.*
- 2:55 PM **O Gonzalez-Recio**, I Zubiria, A García-Rodríguez, A Hurtado, and R Atxaerandio. *Bovine genes regulate the rumen microbial composition.*
- 3:15 PM **E. McGovern**, M.S. McCabe, A.K. Kelly, D.A. Kenny, P. Cormican, and S.M. Waters. *16SrRNA amplicon sequencing of mock microbial populations to investigate DNA extraction methodology, primer selection and PCR cycles.*
- 3:35 PM **Jordi Estellé**, Núria Mach, Yulixaxis Ramayo-Caldas, Florence Levenez, Gaëtan Lemonnier, Catherine Denis, Mustapha Berri, Marie-José Mercat, Yvon Billon, Joël Doré, Catherine Larzul, Patricia Lepage, and Claire Rogel-Gaillard. *Host genetics influences gut microbiota composition in pigs.*
- 4:30 PM **Peter Karlskov-Mortensen**, Anni Øyan Pedersen, Nuria Canibe, Pia Kiilerich, Karsten Kristiansen, and Merete Fredholm. *The MetaPig project: Leveraging Potentials in Pig Genomics and Metagenomics to boost feed efficiency and gut health in modern pig production.*
- 4:50 PM **D. Crespo-Piazuelo**, J. Estellé, M. Revilla, L. Criado-Mesas, Y. Ramayo-Caldas, C. Óvilo, A. I. Fernández, M. Ballester, and J. M. Folch. *Characterization of the gut microbiome along the digestive tract of Iberian pigs.*
- 5:10PM S. Bovo, G. Mazzoni, A. Ribani, V.J. Utzeri, F. Bertolini, G. Schiavo, and **L. Fontanesi**. *A metagenomics study on a non-metagenomics experiment: mining next generation sequencing datasets from porcine DNA identified unexpected viral sequences.*
- 5:30 PM Discussion.

Number of participants at meeting: 75

Summary of the meeting

1. Chair's report

The studies on the interplay between the hosts and their microbiomes have revealed that microbiomes are main actors of host phenotypic variability. Thus, in a perspective of better understanding the biological steps from genomes to phenomes, addressing the role of microbiomes and metagenomes is a new challenge for the animal genetics community to tackle.

- a) The chair and speakers are grateful to the ISAG executive committee to have scheduled a first workshop dedicated to animal microbiomes at the ISAG conference in Dublin.
- b) The chair thanks all speakers for excellent presentations and numerous attendees for invigorating questions and discussion during the workshop.
- c) The attendees all agreed on the specificity of ISAG to provide a very appreciated and helpful forum to discuss research and related translational applications. The important role of ISAG for comparison tests, standardization of methods and procedures, as well as shared resources has been reaffirmed. ISAG is expected to continue playing this role in the analysis of animal microbiomes, which are foreseen to grow significantly in the animal genetics research community. Among expectations: data analysis standardization, replication of results in different populations/species, estimate of the impact of microbiomes on the phenotypic variance of complex traits
- d) The scientific relevance to propose a second workshop on microbiomes at the next ISAG meeting (37th ISAG conference in Lleida) was discussed. This motion passed unanimously.
- e) It has been proposed to suggest invited speakers for a next time, by applying to specific ISAG funding.

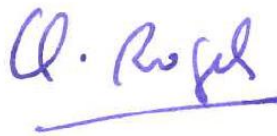
2. Committee composition

- a) No standing committee exists yet.
- b) Following the ISAG rules, it has been proposed to set up an ad hoc committee to help in organizing the next workshop. This Steering Committee includes the chair and senior speakers of the first workshop who have agreed to serve:
 - Claire Rogel-Gaillard (France, Chair): claire.rogel-gaillard@inra.fr
 - Mick Watson (UK): mick.watson@roslin.ed.ac.uk
 - Jordi Estellé (France) : Jordi.estelle@inra.fr
 - Oscar Gonzales (Spain): gonzalez.oscar@inia.es
 - Peter Karlskov-Mortensen (Denmark): pkm@sund.ku.dk
 - Luca Fontanesi (Italy): luca.fontanesi@unibo.it
- c) It will be suggested to form a standing committee in 2019 after the second workshop.

3. Discuss format and content of workshop to aid planning of 2019 workshop

- a) Organization of 2019 Workshop: The Steering Committee members are aware that they will have to propose a program for the next ISAG meeting in 2019 by selecting oral presentations from the submitted abstracts found relevant for the workshop on microbiomes.
- b) A lightning roundtable could be planned in order for PhD candidates to briefly present their work. This will depend on the number of abstracts submitted by PhD candidates. It would be appreciated to know in advance which abstracts are submitted by PhD candidates.

SIGNATURE



Chair: Claire Rogel-Gaillard