

Comparative MHC Genetics Workshop

Organised by a Standing Committee: NO

Meeting information

Date: Wednesday, July 5, 2023
Time: 8:30 – 10:30 a.m.
Number of participants: 30

Chair

Name: Jun Heon Lee
Affiliation: Chungnam National University
Contact email: junheon@cnu.ac.kr

Co-Chair (optional)

Name: none		
Affiliation:		
Contact email:		



Agenda

Comparative MHC Genetics (orals)

Chair(s): Jun Heon Lee, Chungnam National University

Location: **Daisy**

Date & Time: Wednesday, July 5, 8:30 AM - 10:30 AM

8:30 AM 89781 MHC haplotype diversity in the main equine breeds of the Iberian Peninsula.

M García-Martínez¹, A Cequier^{1,2}, E Bernad¹, B Serrano¹, A Romero^{2,1}, FJ Vázquez^{2,1}, A Vitoria^{2,1}, S Fuente^{2,1}, C Cons¹, C Rodellar*¹, and L Barrachina^{1,2}, ¹Laboratorio de Genética Bioquímica LAGENBIO-Instituto Agroalimentario de Aragón-IA2 (Universidad de Zaragoza-CITA)- Instituto de Investigación Sanitaria de Aragón (IIS), Zaragoza, Spain, ²Servicio de Cirugía y Medicina Equina, Hospital Veterinario, Universidad de Zaragoza, Zaragoza, Spain.

8:45 AM 89664 Successful reduction of proviral load by a novel bovine leukemia virus vaccine targeting cattle carrying susceptible bovine leukocyte antigen (BoLA)-DRB3 allele.

Yoko Aida*^{1,2}, Shin-nosuke Takeshima^{2,3}, Lanlan Bai^{2,4}, Jiyun kim², Yuki Matsumoto², Ryosuke Matsuura^{1,2}, and Junko Kohara⁵, ¹Laboratory of Global Infectious Diseases Control Science, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, ²Viral Infectious Diseases Unit, RIKEN, Saitama, Japan, ³Department of Food and Nutrition, Jumonji University, Saitama, Japan, ⁴Graduate School of Science and Engineering, Iwate University, Iwate, Japan, ⁵Animal Health Group, Animal Research Center, Hokkaido Research Organization, Hokkaido, Japan.

9:00 AM 89436 A multi-omics approach to provide complete genomic information on long-debated genes in birds.

Qiang-Sen Zhao*¹, Feng Zhu¹, Zhong-Tao Yin¹, Yun-Xiao Sun¹, Yu-Chen Jie¹, Jacqueline Smith², Li-Wa Shao¹, Ning Yang¹, and Zhuo-Cheng Hou¹, ¹National Engineering Laboratory for Animal Breeding and Key Laboratory of Animal Genetics, Breeding and Reproduction, MARA; College of Animal Science and Technology, China Agricultural University, Beijing, China, ²The Roslin Institute & R(D)SVS, University of Edinburgh, Easter Bush, Midlothian, UK.

9:15 AM 89638 Analysis of the genetic diversity of swine leukocyte antigen 1-linked olfactory receptor genes and analysis of correlation with reported porcine testicular expression levels.

Mingue Kang*, Byeongyong Ahn, Seungyeon Youk, and Chankyu Park, Department of Stem Cell And Regenerative Biotechnology Graduate School of Konkuk University, Seoul, Republic of Korea.



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9:30 AM	89685	Association of the <i>IRAK1</i> gene polymorphism with health, milk and exterior traits in cattle. L Tichý* ^{1,2} , V Šteiger ¹ , L Zavadilová ² , D Schröffelová ¹ , J Kyselová ² , M Pribánová ¹ , L Vostrý ² , J Kucera ¹ , and Z Sztankóová ² , ¹ Czech Moravian Breeders' Corporation, Hradištko, Czech Republic, Czech Republic, ² Institute of Animal Science, Prague-Uhríneves, Czech Republic, Czech Republic.
9:45 AM	89303	Integration of information from multiple gene expression and genome-wide association studies on host resistance of cattle to infestation with Rhipicephalus microplus ticks. Kamonchanok Chooyoung*, Barbara Mable, and Nicholas Jonsson, School of Biodiversity, One Health and Veterinary Medicine College of Medical, Veterinary and Life Sciences University of Glasgow, Glasgow, United Kingdom.
10:00 AM	89807	Investigating the role of β-globin in the response to mycotoxin exposure in sheep. K McRae* ¹ , E Willems ² , A Thomas ² , R Clarke ¹ , J Plowman ² , E Maes ² , S Clarke ¹ , and P Johnson ¹ , ¹ AgResearch Ltd, Mosgiel, New Zealand, ² AgResearch Ltd, Lincoln, New Zealand.
10:15 AM		General Discussion.

Summary of the meeting

Presentations. The workshop included eight presentations. All the presentations (15 minutes each) were selected by the temporary Committee chair (Jun Heon Lee) from the abstracts submitted. The selection was initially based on the keywords, MHC and MHC genes (such as SLA and BoLA) from the submitted abstracts to ISAG2023 (4 abstracts were selected and these are not enough numbers for the workshop), then extended selection of the abstracts for the immune response and disease resistance. The selected abstracts were also reported to the current Committee Chair (Prof John Hammond). During the session, 3rd speaker, Q.-S. Zhao, was not attended, even did not submitted presentation file. Therefore, temporary Committee chair (Jun Heon Lee) gave a replace presentation, entitled "The IPD-MHC Database: novel tools for the study of the Major Histocompatibility Complex" which was prepared by Current Chair, Prof John Hammond. In summary, the workshop went well but presentations covered not only Comparative MHC Genetics, but also included wide range of immune response and disease resistance. Following the workshop, a Business meeting was held.



<u>Election of Steering Committee members.</u> Based on the 2019 report, the committee composition remains essentially the same, with rolling appointments for species-specific IPD-MHC curators along with several new members. Therefore, the attending membership agreed to re-elect all the Steering Committee members until 2027.

<u>Chair election</u>. All the attending members were agreed the re-elect the current Chair, Prof John Hammond, for one more term until 2027.

Other agreements. Due to the lack of abstracts for the "Comparative MHC Genetics" workshop, the executive committee of ISAG suggested that merging two workshops, "Comparative MHC Genetics" and "Immune Response and Disease Resistance". This will be further discussed at Chair meeting in the future.

New Committee chair

Chair: ??????
Term of service (add years of first and second term of service):
Affiliation:
E-mail address:

New Committee co-chair (optional)

Chair: ?????
Term of service (add years of first and second term of service):
Affiliation:
E-mail address:

Note: One term runs for two bi-annual conferences (i.e. four years)

New Committee members



INTERNATIONAL SOCIETY FOR ANIMAL GENETICS

Other committee	First term of service (from	Second term of service (from year	Empil address
members	year to year)	to year)	Email address
Keith Ballingall	2019-2023	2023-2027	keith.ballingall@moredun.ac.uk
Mike Stear	2019-2023	2023-2027	m.stear@vet.gla.ac.uk
Chris Davies	2019-2023	2023-2027	chris.davies@usu.edu
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Steven Marsh	2019-2023	2023-2027	steven.marsh@ucl.ac.uk

COMPARISON TEST (2020-2021) NO

INTERNATION