

Avian Genetics and Genomics Workshop

Organised by a Standing Committee: YES

Meeting information

Date: Thursday, July 6, 2023

Time: 2:00 – 5:30 p.m. (14:00 – 17:30)

Number of participants: 65

Chair

Name: Susan J. Lamont

Affiliation: Iowa State University

Contact email: sjlamont@iastate.edu

Co-Chair (optional)

Name: none

Affiliation:

Contact email:

Agenda

Avian Genetics and Genomics (orals)	
Chair(s): Susan Lamont, Iowa State University, Ames, Iowa, United States	
Location: Orchid	
Date & Time: Thursday, July 6, 2:00 PM - 5:30 PM	
2:00 PM	<p>OP156 ISAG Bursary Award: Invited Workshop Presentation: Chicken2K: A panel for global chicken genomic diversity and evolutionary inference.</p> <p>C. Ma*¹, M.-S. Peng^{1,12}, J. Smith², X. Huang³, S. Zhang¹, X. Li⁴, A. Esmailizadeh^{1,5}, S. C. Ommeh⁶, D. W. Burt⁷, A. C. Adeola^{1,12}, M.-S. Wang^{1,12}, O. Hanotte^{8,9}, J. Han^{10,11}, Y. Dong⁴, Y.-P. Zhang^{1,13}, ¹State Key Laboratory of Genetic Resources and Evolution & Yunnan Laboratory of Molecular Biology of Domestic Animals, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, Yunnan, China, ²The Roslin Institute and R(D)SVS, University of Edinburgh, Midlothian, UK, ³Guangdong Provincial Key Laboratory of Conservation and Precision Utilization of Characteristic Agricultural Resources in Mountainous Areas, School of Life Science, Jiaying University, Meizhou, Guangdong, China, ⁴State Key Laboratory for Conservation and Utilization of Bio-Resources in Yunnan, Yunnan Agricultural University, Kunming, Yunnan, China, ⁵Department of Animal Science, Faculty of Agriculture, Shahid Bahonar University of Kerman, Kerman, Iran, ⁶Institute for Biotechnology Research (IBR), Jomo Kenyatta University of Agriculture and Technology (JKUAT), Nairobi, Kenya, ⁷UQ Genomics, The University of Queensland, Brisbane, Australia, ⁸Cells, Organisms and Molecular Genetics, School of Life Sciences, University of Nottingham, Nottingham, UK, ⁹Livestock Genetics Program, International Livestock Research Institute (ILRI), Addis Ababa, Ethiopia, ¹⁰CAAS-ILRI Joint Laboratory on Livestock and Forage Genetic Resources, Institute of Animal Science, Chinese Academy of Agricultural Sciences (CAAS), Beijing, China, ¹¹Livestock Genetics Program, International Livestock Research Institute (ILRI), Nairobi, Kenya, ¹²Sino-Africa Joint Research Center, Chinese Academy of Sciences, Kunming, Yunnan, China, ¹³State Key Laboratory for Conservation and Utilization of Bio-Resources in Yunnan, Yunnan University, Kunming, Yunnan, China.</p>
2:45 PM	<p>OP157 ISAG Bursary Award: A lncRNA gene-enriched atlas for GRCg7b chicken genome and its functional annotation across 47 tissues.</p> <p>F. Degalez*^{1,2}, M. Charles², S. Foissac², H. Zhou³, D. Guan³, C. Alain^{1,2}, L. Fang⁴, C. Klopp², L. Lagoutte^{1,2}, B. Lebez^{1,2}, F. Lecerf^{1,2}, F. Pitel², B. Vourc'h^{1,2}, T. Zerjal², S. Lagarrigue^{1,2}, ¹Institut Agro, France, ²INRAE, France, ³University of California–Davis, Davis, CA, ⁴Aarhus University, Denmark.</p>
3:00 PM	<p>OP158 ISAG Bursary Award: Genetic diversity and relationship between Nigerian Muscovy duck populations using the mitochondria cytochrome b gene.</p> <p>O. Yusuf*¹, F. Sola-Ojo¹, and C. Adeola², ¹Faculty of Agriculture, Department of Animal Production, University of Ilorin, Kwara state, Nigeria, ²State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences, Kunming, China.</p>

3:15 PM	OP159	<p>ISAG Bursary Award: Potential of a chicken AIL population to decipher the genetic mechanisms of complex traits in the integrative omics era.</p> <p>X. Zhu*¹, C. Li¹, C. Luo², H. Zhou³, L. Fang⁴, H. Qu², Y. Wang¹, and X. Hu¹, ¹<i>State Key Laboratory for Agro-Biotechnology, China Agricultural University, Beijing, China</i>, ²<i>State Key Laboratory of Livestock and Poultry Breeding, Institute of Animal Science, Guangdong Academy of Agricultural Sciences, Guangzhou, China</i>, ³<i>Department of Animal Science, University of California, Davis, CA</i>, ⁴<i>Center for Quantitative Genetics and Genomics (QGG), Aarhus University, Aarhus, Denmark.</i></p>
3:30 PM		Tea/Coffee Break, Exhibition and Poster Viewing.
4:00 PM	OP160	<p>The Chicken Genomic Diversity Consortium: Tracking immune diversity from ancient chickens to the present day.</p> <p>S. Fiddaman*¹, A. Smith¹, and L. Frantz^{3,2}, ¹<i>University of Oxford, Oxford, UK</i>, ²<i>QMUL, London, UK</i>, ³<i>LMU, Munich, Germany.</i></p>
4:15 PM	OP161	<p>Accumulated variations in the promoter regions play an important role for complex traits during duck domestication.</p> <p>Z.-T. Yin*¹, X.-Q. Li¹, Y.-X. Sun¹, J. Smith², N. Yang¹, and Z.-C. Hou¹, ¹<i>National 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</i>, ²<i>The Roslin Institute & R(D)SVS, University of Edinburgh, Easter Bush, Midlothian, UK.</i></p>
4:30 PM	OP162	<p>Allele-specific expression in the jejunal transcriptome profiles of two laying hen strains over the entire production period.</p> <p>S. Ponsuksili*, F. Hadlich, M. A. Iqbal, H. Reyer, M. Oster, N. Trakooljul, E. Murani, and K. Wimmers, <i>Research Institute for Farm Animal Biology, Dummerstorf, Germany.</i></p>
4:45 PM	OP163	<p>Different stress response strategies of an Arctic breeding bird (<i>Calcarius lapponicus</i>) under inclement weather conditions revealed by the genome and RNA-seq analyses.</p> <p>Z. Wu*¹, M. M. Hindle¹, A. M. A. Reid¹, J. H. Pérez^{2,3}, J. S. Krause^{2,4}, J. C. Wingfield², S. L. Meddle¹, and J. Smith¹, ¹<i>The Roslin Institute and Royal (Dick) School of Veterinary Studies R(D)SVS, University of Edinburgh, United Kingdom</i>, ²<i>Department of Neurobiology Physiology Behavior, University of California, Davis, CA</i>, ³<i>Department of Biology, University of South Alabama, Mobile, AL</i>, ⁴<i>Department of Biology, University of Nevada–Reno, Reno, NV.</i></p>
5:00 PM	OP164	<p>Genome-wide association study of nucleotide and peptide contents of breast meat in Korean native chickens.</p> <p>M. Kim*¹, E. Cho¹, J. Munyaneza¹, A. Jang², H. Choo³, and J. Lee¹, ¹<i>Chungnam National University, Daejeon, Korea</i>, ²<i>Kangwon National University, Chuncheon, Gangwon-do, Korea</i>, ³<i>National Institute of Animal Science, Rural Development Administration, Pyeongchang, Gangwon-do, Korea.</i></p>
5:15 PM		Business meeting.

Summary of the meeting

Presentations. The workshop included nine presentations. The first (45-minute) presentation was invited after selection from a competitive proposal for ISAG travel support. The other (15-minute) presentations were selected by the Steering Committee from 47 abstracts submitted to the Avian Genetics and Genomics Workshop. The selection was based on the votes of the individual Steering Committee members of the top abstracts. Collectively, the presentations covered a variety of avian species and geographic origins. The first four presentations were by ISAG Bursary recipients.

Following the workshop, a Business meeting was held.

Appreciation. Xiaoxiang Hu and Susan Lamont were thanked for service on the Avian Standing Committee. Klaus Wimmers was thanked for his previous service as Chairperson, a position that he needed to step out of when elected to ISAG office in 2021.

Election of Steering Committee members. The membership attending the meeting voted to re-elect to a second term, or newly elect, the following four: Adetula Adeyinka, Wen Jie, Min-Sheng Peng, Huaijun Zhou. These three continue as Steering Committee members until 2025: Svetlana Galkina, Demilade Ibiwoye, Jun Heon Lee.

Chair election. The new committee elected its chairperson and vice-chairperson by email vote after the meeting, so that all Steering Committee members could vote. The two outgoing members (Lamont, Hu) of the committee collected and verified the vote count.

New Committee chair

Chair: Huaijun Zhou

Term of service (*add years of first and second term of service*): 2023-2027 (first term)

Affiliation: University of California-Davis

E-mail address: hzhou@ucdavis.edu

New Committee co-chair (optional)

Co-chair: Min-Sheng Peng
Term of service (<i>add years of first and second term of service</i>): 2019-2023; 2023-2027
Affiliation: Kunming Institute of Zoology, Chinese Academy of Sciences
E-mail address: pengminsheng@mail.kiz.ac.cn

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

New Committee members

Other committee members	First term of service (from year to year)	Second term of service (from year to year)	Email address
Adeyinka Abiola Adetula	2019-2023	2023-2027	quueenyk10@yahoo.com
Svetlana Galkina	2017-2021	2021-2025	svetlana.galkina@mail.ru
Demilade Ibiwoye	2021-2025		ibiwoyedemilade8@gmail.com
Jie Wen	2023-2027		wenjie@caas.cn
Jun Heon Lee	2021-2025		junheon@cnu.ac.kr
Min-Sheng Peng	2019-2023	2023-2027	pengminsheng@mail.kiz.ac.cn
Huaijun Zhou	2023-2027		hzhou@ucdavis.edu

COMPARISON TEST (2020-2021) NO



INTERNATIONAL SOCIETY FOR ANIMAL GENETICS

SIGNATURE

A handwritten signature in black ink, appearing to read "J. J. J. J.", is written on a light gray rectangular background. Below the signature is a solid black horizontal line.

Chair