



ISAG-FAO Advisory Group on Animal Genetic Diversity

STANDING COMMITTEES / WORKSHOPS Information will be posted online

Organised by a standing committee yes

Date and meeting time: **July 25, 2014, 08:30-12:00**

Chair, name and contact email: **Catarina Ginja, catarinaginja@gmail.com**

Agenda / programme attached yes

Number of participants at meeting: **approximately 100 people**

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

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 35th ISAG Conference in Salt Lake City, Utah, U.S.A., in the morning of Monday, July 25, 08:00-12:00. The workshop was chaired by Dr. Catarina Ginja (InBIO/CIBIO, Universidade do Porto, Portugal). The program included 2 invited speakers and 9 oral communications selected among the abstracts submitted for poster presentations. The meeting was attended by approximately 100 participants. Due to presence of just a few members of the ISAG-FAO Advisory Group on Animal Genetic Diversity it was decided to postpone the business meeting until the 36th ISAG Conference to be held in Dublin in July 2017.

Committee members

Chair: Dr. Catarina Ginja (also cattle representative)

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Other members:

Dr. J. A. Lenstra (Utrecht University, cattle representative)

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WORKSHOP REPORT

The Workshop of the ISAG-FAO Advisory Group on Animal Genetic Diversity was held during the 35th ISAG Conference in Salt Lake City, Utah, U.S.A., in the morning of Monday, July 25, 08:00-12:00. The workshop was chaired by Dr. Catarina Ginja (InBIO/CIBIO, Universidade do Porto, Portugal). The program included 2 invited speakers, namely Dr. Juha Kantanen (Natural Resources Institute Finland-Luke, Jokioinen, Finland) and Dr. Paul Boettcher ((FAO, Rome, Italy), as well as 9 oral communications selected among the abstracts submitted for poster presentations. The meeting was attended by approximately 100 participants.

The following communications were presented:

J. Kantanen (Natural Resources Institute Finland-Luke, Finland)

The adaptation of farm animals to northern and Arctic environments

P. Boettcher (FAO, Italy)

Overview of the latest FAO-Report on the diversity and management of Farm Animal Genetic Resources

Works selected among 64 abstracts based on their quality and to cover a wide range of molecular markers and species from different regions of the globe:

B. N. Keel (USDA, NE, U.S.A.)

Genome-wide copy number variation in the bovine genome detected using low coverage sequence of popular beef breeds

G. E. Liu (USDA, MD, U.S.A.)

Systematic profiling of short tandem repeats in the cattle genome

E. Lipkin (Hebrew University of Jerusalem, Israel)

Global and local admixture analyses of Baladi cattle

J. Kijas (CSIRO Agriculture, Australia)

Launching SheepGenomesDB: 100 million variants from nearly 500 sheep genomes

M. Yaro (Curtin University, Australia)

Pooled whole-genome sequencing reveals molecular signatures of natural adaptive selection in Djallonke sheep of Ghana

A. R. Elbeltagy (Iowa State University, U.S.A. and Animal Production Research Institute, Egypt)

Runs of homozygosity reveal natural selection footprints of some African chicken breeds and village ecotypes

H. Blackburn (USDA, CO, U.S.A.)

Genetic diversity of pig populations from the US mainland, Pacific islands and China: Autosomal SNP evaluation

Y. Sato (Meiji University, Japan)

Paternal genetic characterization of wild boars and domestic pigs in Japan, based on SRY and TSPY gene haplotypes

C. Ginja (CIBIO-InBIO, Universidade do Porto, Portugal)

Origins and genetic structure of Creole cattle inferred from Y-chromosomal variation

Business meeting

Only three members of the Advisory Group (C. Ginja, P. Boettcher, and J. A. Lenstra) attended the ISAG conference in Utah. During a short and informal business meeting immediately following the workshop it was decided to postpone the business meeting until the 36th ISAG Conference to be held in Dublin in July 2017. Prof. Max Rothschild was invited to join this meeting, as for suggestion of Dr. P. Boettcher, to discuss the possibility and interest in developing specific SNP arrays for characterization of the genetic diversity of AnGR worldwide. The preliminary ideas to discuss during the next meeting of this advisory group are the following:

- Interest in drafting a technical review for publication on Animal Genetics describing the rapid changes and challenges for FAnGR, with the ISAG-FAO committee members as authors.
- Importance of collecting phenotypic information that can be used in genomic studies worldwide and for the different farm animal species.
- Research consortia and further genetic characterization of FAnGR.
- Novel markers for monitoring genetic diversity in FAnGR, e.g. to develop specific SNP array(s) for use in genetic diversity studies.
- As proposed by Dr. Olivier Hanotte, sequencing all livestock genetic resources (breed/populations) as *ex-silico* resources of diversity information and to make this information publically available, by putting together efforts from different reference laboratories and under the leadership of this committee. The first steps being the need to set-up and agree on standard number of animal per population, genome coverage, sequencing platform, etc.
- What are the main goals of this committee? Invite other people to join? Any replacements we should do?
- Other actions: set up a satellite meeting during the ISAG2017 in Dublin?

COMPARISON TEST (2015-2016)

no

SIGNATURES

Chair

Catarina Ginja, PhD

IMPORTANT INFORMATION FROM THE WORKSHOP AND STANDING COMMITTEE GUIDELINES:

All members of a standing committee need to have individual membership of ISAG throughout the time of service. If new committee members are not ISAG members when elected it is necessary to become so as soon as possible.

The workshop Chair has to compile the report of the workshop and then circulate it to the members of the Standing Committee for any comment and revision. The report then has to be mailed to the ISAG secretary within the noted deadline.

PLEASE EMAIL A WORD VERSION AND A SIGNED PDF VERSION OF THIS REPORT TO THE ISAG SECRETARY: [Ingrid Olsaker](mailto:Ingrid.Olsaker@assochq.org) ISAGsecretary@assochq.org

DEADLINE AUGUST 31st 2016

The secretary will take care of sending this report to the ISAG members having participated in the workshop. Participants are allowed to comment and may ask for revision. Such a request for revision has to be given including relevant reasons and arguments. The Secretary will send these requests to the Chair for dispute in the Standing Committee. Within two weeks the Standing Committee has to answer the Secretary

If no comments from participants have been received within TEN days , the report is considered to be approved and will be published on the ISAG web.

For more information please see the committee guidelines and comparison test rules.