

Applied Sheep and Goat Genetics

STANDING COMMITTEES / WORKSHOPS Information will be posted online

Organised by a standing committee yes no

Date and meeting time: 26th of July 2016, 8:30 – 12:00

Chair, name and contact email: Gesine Lühken, Gesine.Luehken@agrar.uni-giessen.de

Agenda / programme attached: no

Number of participants at meeting: approx. 40-50 during oral presentations, 27 signed list during comparison test discussion

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

Oral presentations

C. J. Posbergh (P5017) Identifying genetic regions to spring ewes to lamb out of season.

K. Mdladla (P5039) A landscape genomic approach to unravel the genomic mechanism of adaptation in indigenous goats of South Africa.

T. Hadfield (P5051) Genetic investigation of sheep families demonstrating the entropion eye condition.

S. M. Clarke S0115 SNP parentage testing in sheep- a comparison of technologies. (Invited key note talk).

S. White (P6050) Extended scrapie incubation time in goats singly heterozygous for PRNP S146 or K222: An update after 7 years.

X. Wang (P7001) Heritable gene disruption in goats with CRISPR/Cas9 results in expected phenotypes.

Comparison tests

Results of ovine and caprine comparison tests 2015-16 were presented by Gesine Lühken (sheep CT, some slides were provided by Clementine Rodellar) and Amparo Martinez (goat CT) and discussed with the attendants. The following decisions were made:

- 1) Ovine CT: The correct genotype of sample OCT11 for INRA005 is 131/133 (no votes against).
- 2) Ovine CT: The correct genotype of sample OCT01 for CSRD247 is 255/ (no votes against).

3) Goat CT: The correct genotype of sample GCT17 for INRA006 is 117/149. As very many labs missed the larger allele, reports of the results as “117/” will not be scored as wrong in the CT 2015-16. For the next CT, the existence of the allele 149 has to be taken into account by participating labs (9 votes in favour, no votes against).

4) Formatting errors (e. g. “YX” instead of “XY”, “255/255” instead of “255/”) will be corrected and not scored as errors. Gesine Lühken will inform Jeremy Holzner about formatting errors.

5) There will be no sheep or goat CT in 2016/17.

We thank Clementine Rodellar (sheep) and Amparo Martinez (goat) to volunteer as duty labs for STR CTs planned for 2018-19. There will be a discussion about a possible SNP parentage comparison test for sheep for 2018-19 on the workshop in 2017.

As all members of the Applied Genetics in Sheep and Goat committee had been elected until 2019 and anyone stepped down, there was no need to elect new members.

Committee members (the new committee)

Chair	term of service	E mail address
Gesine Lühken	2014-2019	Gesine.Luehken@agrar.uni-giessen.de

Other members	term of service	E mail address
Bengi Cinar Kul	2014-2019	bkul@veterinary.ankara.edu.tr
Rosina Fossati	2014-2019	fossati@genia.com.uy
Julie Ogereau*	2014-2019	julie.ogereau@jouy.inra.fr
Meng-Hua Li	2014-2019	menghua.li@ioz.ac.cn
Amparo Martinez	2014-2019	amparomartinezuco@gmail.com
Mohammad Hossein Moradi	2014-2019	hoseinmoradi@ut.ac.ir
Clementine Rodellar	2014-2019	rodellar@unizar.es
Xiaolong Wang	2014-2019	xiaolongwang@nwsuaf.edu.cn
Stephen White	2014-2019	swhite@vetmed.wsu.edu

* substitutes Félicie Lahalle-Faucon

COMPARISON TEST (2015-2016)**yes****no****Duty laboratory name and email address****Sheep:** Clementine Rodellar, rodellar@unizar.es, University of Zaragoza, Spain**Goat:** Amparo Martinez, amparomartinezuco@gmail.com, Laboratorio de Genética Molecular Aplicada, Animal Breeding Consulting, S.L. Spain**Comments (issues rising)**

Decisions were made on results of 2 markers in sheep and 1 marker in goat (see “Summary of the meeting” above)

It was decided not to conduct ovine or caprine comparison tests in 2016-17 and to plan comparison test for 2018-19 on the workshop in 2017 (Dublin).

List of recommended markers with primer information**Sheep STR markers**

Marker	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')
AME	CAGCCAAACCTCCCTCTGC	CCCGCTTGGTCTTGTCTGTTGC
CSRD247	GGACTTGCCAGAACTCTGCAAT	CACTGTGGTTTGTATTAGTCAGG
ETH152/D5S2	TACTCGTAGGGCAGGCTGCCTG	GAGACCTCAGGGTTGGTGATCAG
INRA005	TTCAGGCATACCCTACACCACATG	AAATATTAGCCAACCTGAAAACCTGGG
INRA006	AGGAATATCTGTATCAACCGCAGTC	CTGAGCTGGGGTGGGAGCTATAAATA
INRA023	GAGTAGAGCTACAAGATAAACTTC	TAACTACAGGGTGTAGATGAACTC
INRA063	GACCACAAAGGGATTTGCACAAGC	AAACCACAGAAATGCTTGGAAG
INRA172	CCAGGGCAGTAAATGCATAACTG	GGCCTTGCTAGCCTCTGCAAAC
MAF065	AAAGGCCAGAGTATGCAATTAGGAG	CCACTCCTCCTGAGAATATAACATG
MAF214	AATGCAGGAGATCTGAGGCAGGGACG	GGGTGATCTTAGGGAGGTTTTGGAGG
MCM042	CATCTTTCAAAGAAGTCCGAAAGTG	CTTGGAATCCTCCTAACTTTCCGG
MCM527	GTCCATTGCCTCAAATCAATTC	AAACCACTTGACTACTCCCCAA
OARFCB20	GGAAAACCCCATATATACCTATAC	AAATGTGTTTAAGATTCCATACATGTG

Goat STR markers

Marker	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')
CSRD247	GGACTTGCCAGAACTCTGCAAT	CACTGTGGTTTGTATTAGTCAGG
ILSTS008	GAATCATGGATTTTCTGGGG	TAGCAGTGAGTGAGGTTGGC
ILSTS019	AGGGACCTCATGTAGAAGC	ACTTTTGGACCCTGTAGTGC
ILSTS087	AGCAGACATGATGACTCAGC	CTGCCTCTTTTCTTGAGAGC
INRA005	TTCAGGCATACCCTACACCACATG	AAATATTAGCCAACCTGAAAACCTGGG
INRA006	AGGAATATCTGTATCAACCGCAGTC	CTGAGCTGGGGTGGGAGCTATAAATA
INRA023	GAGTAGAGCTACAAGATAAACTTC	TAACTACAGGGTGTAGATGAACTC
INRA063	GACCACAAAGGGATTTGCACAAGC	AAACCACAGAAATGCTTGGAAG
MAF065	AAAGGCCAGAGTATGCAATTAGGAG	CCACTCCTCCTGAGAATATAACATG
MCM527	GTCCATTGCCTCAAATCAATTC	AAACCACTTGACTACTCCCCAA
OARFCB20	GGAAAACCCCATATATACCTATAC	AAATGTGTTTAAGATTCCATACATGTG
SRCRSP23	TGAACGGGTAAAGATGTG	TGTTTTAATGGCTGAGTAG
SRCRSP05	GGACTCTACCAACTGAGCTACAAG	TGAAATGAAGCTAAAGCAATGC
SRCRSP08	TGCGGTCTGGTTCTGATTTAC	CCTGCATGAGAAAGTCGATGCTTAG

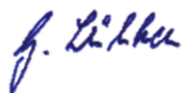
Duty laboratory for the next comparison test with contact details for 2018-19:

Sheep: Clementine Rodellar, rodellar@unizar.es, University of Zaragoza, Spain

Goat: Amparo Martinez, amparomartinezuco@gmail.com, Laboratorio de Genética Molecular Aplicada, Animal Breeding Consulting, S.L. Spain

SIGNATURES

Chair



(Gesine Lühken)

Duty laboratories



(Clementine Rodellar)



(Amparo Martinez)