

Alpaca & Llama Working Group

STANDING COMMITTEES / WORKSHOPS Info

Information will be posted online

Organised by a standing committee No – working group Date and meeting time: July 16, 2012, 2-5:30p Chair, name and contact email: Cecilia Penedo, mctorrespenedo@ucdavis.edu

Agenda / programme

- 1) Welcome and overview of meeting agenda (Cecilia Penedo, Deanne Waine, Eberhard Manz)
- 2) Update on status of the Working Group (Cecilia Penedo)
- 3) Presentations
 - Poster 54769: Identification of allelic variants in Melanocortin-1 receptor gene in llama (Lama glama). Maria S. Daverio, Florencia di Rocco, Lidia Vidal Rioja. (Not presented at workshop – flight delay)
 - Poster 54608: Mapping of the blue-eyed white phenotype in alpacas: the genetic links between pigmentation and deafness, <u>Felicity Jackling</u>, W Johnson, B. Appleton.
 - DNA program of the AZVD (German Alpaca Association) History and model for parentage assessment of alpacas in Europe. Eberhard Manz.
- 4) 2011-2012 Comparison Test
 - Report from Duty Laboratory (Eberhard Manz)
 - Report from Computer Laboratory (Cecilia Penedo)
 - Selection of Duty Laboratory for 2012-2014 Comparison Test
- 5) Other business: Election of Standing Committee Members (2), contingent upon outcome of Business Meeting.

Number of participants at meeting: 16

Working Group membersCecilia Penedo, Chair (<u>mctorrespenedo@ucdavis.edu</u>), Eberhard Manz (<u>manz@generatio.com</u>) and Deanne Waine (d.waine@ug.edu.au)

Summary of the meeting: This was the second meeting of the Llama/Alpaca Working Group organized in the context of a comparison test. Presentations of coat color research and DNA typing program were well received and generated productive discussions. The group petitioned the ISAG Executive Committee to be recognized as a Standing Committee and the request was approved at the Business session. In anticipation of the approval, participants of the workshop selected members to compose the Camelid Genetics and Genomics Standing Committee and organize the comparison test for 2013-2014:

Standing Committee:

Chair: Eberhard Manz (Germany, <u>manz@generatio.com</u>) Members: Marcela Martinez (Argentina), Belinda Appleton (Australia), Deanne Waine (Australia), Cecilia Penedo (USA)

Duty Laboratory: Deanne Waine, University of Queensland, Australia Computer Laboratory: Cecilia Penedo, University of California-Davis, USA

COMPARISON TEST yes

If yes:	Number of enquiries – 17
	Number of participants receiving samples - 17
	Number of samples- 20 plus 1 reference
	Number of participants reporting results: 13

Duty laboratories:	Eberhard Manz	manz@generatio.com
Computing Laboratory:	Cecilia Penedo	mctorrespenedo@ucdavis.edu

Comments:

Participants in the comparison test were from 13 countries. Results were reported for the 14-marker ISAG panel and 8 labs reported results for a total of 27 extra markers. Problems with DNA extracts were reported by several labs for samples #9 and #12. Replacements were provided upon request but these samples were not included in the test evaluation. Genotyping accuracy based on the proposed 14 marker international panel was overall good. Concordant results from 10/13 and 5/13 laboratories ranked 95% and above on the relative and absolute accuracy measures. Regarding marker performance, genotyping concordance was 98% or better for 12/14 markers. For the remaining 2 markers, consistent problems were missed allele outside normal range ("144" in LCA19) and missed single-base differences in LCA66 ("229" and "231" alleles).

Decisions:

Decisions for next comparison test: a) inclusion of samples with LCA19-144 allele; b) inclusion of SRY marker for gender determination; c) inclusion of Old World camel samples to make the comparison test inclusive of all camelids.

List of recommended markers for New World Camelids (llamas, alpacas):

LCA5, LCA8, LCA19, LCA37, LCA56, LCA65, LCA66, LCA94, LGU49, LGU50, YWLL29, YWLL40, YWLL44

SIGNATURES

Chair

Duty laboratory

Computing laboratory

PLEASE HAND IN TO THE ISAG BOOTH OR MAIL (PREFERABLY) THIS REPORT PRIOR TO THE BUSINESS MEETING DURING THE CONFERENCE TO:

ISAG SECRETARY: Ingrid Olsaker ISAGsecretary@assochq.org

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