

Suggestions for new Comparison Test guidelines concerning the Conduct of CTs, the protocol for Duty labs and a Standardized report format for all species

1. Participating labs should identify themselves with their numerical Institutional Membership Number (= Wiley-Blackwell Customer ID) on the consignment form.
2. Problems with import permits: Participants need to check that all the papers are complete. Some countries can only apply for an import permit at the moment samples are send out -> Please indicate those details on the Consignment form.
3. The secretary of ISAG will provide an up-to-date list with ISAG institutional members and their lab-codes to the duty labs and the duty labs will check if all participants are institutional members of ISAG. If questions arise the duty lab addresses them to the secretary of ISAG.
4. The Duty lab should select approximately 20 animals, DNA can be extracted from different sample types.
5. The duty lab selects one reference animal, The genotypes for at least the ISAG recommended markers should be included with the information send to the participants. If possible, the duty lab may also provide reference genotypes for other markers.
6. The Duty lab should extract the DNA from each sample all at once (one batch) to avoid differences in the quality of the DNA send to different laboratories.
7. A protocol for the DNA extractions performed by the duty labs should be made. In such a protocol:
 - a few options should be given for the DNA extraction methods that can be used;
 - The DNA concentration of the samples should be in the range of 30–100 ng/μl;
 - The volume of DNA to be sent out for each sample should be 50μl.
8. In previous CTs we experienced that some labs have problems with the received DNA samples because e.g.:
 - a. the DNA was degraded or contaminated, which could have happened during transportation;
 - b. the PCR-protocol used by that lab does not generate good amplification on the received DNA samples while that same PCR-protocol generates good amplification on DNA extracted with another method that is routinely used by that lab. (In the previous CT the duty lab asked one lab to send the samples back because they didn't amplify, the duty lab tested the samples after receiving them back and the results were good).

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Since this kind of situations are reality guidelines need to be determined about how the duty lab should deal with that. We suggest that those labs will get the opportunity to ask for a second batch of samples. However if the situation described under 8b is the case this second batch of DNA samples will not solve the problem, it is then the lab's decision:

- to report results which will be included in the compilation and rating system or
 - not to report results but report that they had problems and were not able to generate good quality results.
9. If a request to participate is received after the deadline, the duty lab is not obliged to send this lab samples.
 10. If a lab requests samples but doesn't intend to participate in the CT, the duty lab decides if they send samples to this lab.
 11. If it is decided that a lab can ask for a second batch of samples, set a deadline for requesting the Duty Lab for this second batch of samples (we suggest approximately 3 months after the first batches of samples have been sent out).
 12. Set a deadline for reporting results, we suggest approximately 6 months after the first batches of samples have been sent out.
 13. It is not the role of the Duty lab to answer questions about e.g. PCR-conditions, primer sequences, STR-allele nomenclature, provided reference genotypes, problematic alleles, rules/criteria for parentage exclusion. We suggest that each committee can provide technical information to the secretary of ISAG, which can be placed on the ISAG website. If labs have further questions/comments they can report those with the results to the Computer Lab.
 14. The duty lab can request the reimbursement for the costs by sending, before the end of the year an invoice with the exact description of the costs to the Treasurer of ISAG..
 15. Soon after sending out the samples the duty lab will send a list of data from participants and contacts together with the corresponding ISAG numerical code to both the computer lab and to the secretary of ISAG.
 16. The secretary of ISAG will inform the computer lab about participants that have not paid their ISAG membership. All participants who reported results will be included in the final compilation. The computer lab will send the compilation only to participants that have paid their ISAG membership.
 17. If results are received after the deadline, the Computer lab is not obliged to incorporate those into the final compilation.
 18. From previous comparison tests we know that labs report different names for identical markers, this makes compiling and viewing compiled results difficult. We suggest that each committee provides a list with the markers names that should



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be used (based on markers reported in previous comparison tests). Of course on requests from participants this list can be expanded with additional markers.

19. We suggest the following format for the nomenclature:

- Report alleles separated by /, for example: 143/175;
- Presumptive homozygotes must be reported with only one allele, like 143/ for example;
- Use an asterisk (*) to indicate not tested or no result.

20. Participants will be identified in the compilation with their numerical ISAG lab code (= Wiley-Blackwell Customer ID). A list of data from participants and contacts ordered by ISAG numerical code will be provided along with the compiled results.

21. The most frequently reported genotype for each sample and marker will be considered as the “concordant” genotype and will be shown in a different font to “discordant” genotypes. It will be discussed during the workshop if “concordant” genotypes are not correct.

22. We suggest the following report layout:

Lab Code	Locus	1	2	3	4	5	6	7	8	9	10
123456789	marker1	188/	180/	180/188	180/188	188/	178/	178/188	182/	182/188	180/182
222222222	marker1	188/	180/	180/	180/188	188/	178/	178/188	182/	182/188	180/182
333333333	marker1	188/	180/	180/188	180/188	188/	178/	178/188	182/184	182/188	180/182
123456789	marker2	148/150	148/150	148/	148/150	150/	144/	144/148	140/148	148/	140/144
222222222	marker2	148/150	148/150	148/	148/150	150/	144/148	144/148	140/148	148/	140/144
333333333	marker2	148/150	148/150	148/	148/150	150/	144/	144/148	140/148	148/	140/144

- Markers ordered alphabetically beginning with the ISAG recommended markers.
- Columns: Lab code, Marker name, Sample 1, Sample 2 etc.

23. The final compilation will be send out in .pdf format to all participants. Excel format will be available upon request from participants.

(Compiled by A. Eggen based on suggestions received from the Committees, April 21st, 2009)