General information on ISAG Comparison Tests (CT)

The aim of the Comparison Tests is to enable laboratories working on immunogenetics, DNA and biochemical polymorphisms of animals to maintain high standards, to have international agreement on nomenclature and typing procedures and to encourage research.

Participants

1. Participants in Comparison Tests organized on behalf of ISAG must be institutional members of the Society and must abide by these test guidelines. Only members whose dues are paid may participate. Each laboratory shall be given a registered laboratory code.

General Organization

2. The organization of the Comparison Tests for a species shall be supervised by a Standing Committee of 3 to 5 members elected at regular conferences of the Society by institutional members studying that species. Individuals in the Standing Committee shall serve four-year terms and be eligible for re-election for an additional four-year period. The Standing Committee elect from among their members a Chairperson.

3. A Duty Laboratory will be responsible for the choice of samples to be analysed and for dispatching them to participating laboratories. However, the Duty Laboratory and the ISAG are not responsible for freight costs, which must be paid by each laboratory for receipt of their set of samples. The Executive Committee may reimburse a Duty Laboratory for other costs up to € 1000.- based on a description of those costs provided by the Duty Laboratory.

4. A Computer Centre may be chosen for each Comparison Test by the institutional members involved. The Executive Committee may award financial compensation, the amount being decided by the Committee, for processing Comparison Test data.

5. Announcements of the Comparison Tests shall be sent out by the Secretary of ISAG.

Selection of Duty Laboratories

6. The Standing Committee shall prepare time plans for future Comparison Tests, with proposals regarding the choice of Duty Laboratories. These proposals shall be submitted to designated representatives of institutional members at special sessions during regular conferences of the Society. Decisions will be made by a majority vote of those representatives of institutional members present.

7. The selection of a particular laboratory to serve as a Duty Laboratory should depend upon experience in the scientific field with the species of reference.

8. Such matters as import restrictions on blood, tissue and DNA samples should be reviewed and taken into consideration at the time a Duty Laboratory is being considered.

Selection of Sampled Animals

9. Blood, tissue and DNA samples should be selected to represent the broadest coverage of blood factors and DNA and protein polymorphisms.

10. As far as possible, selection of Duty Laboratories for successive Comparison Tests should consider the need for samples from different breeds.

11. Selection of animals from which samples are to be taken should be limited largely to animals whose genotypes for the more important genetic systems are reasonably well established. However, this should not preclude the possibility of the Duty Laboratories including some doubtful and unknown samples in the test.

12. The number of animals to be sampled should normally be between 40 and 50.

Rules for Reporting the Results

13. Results should be reported following instructions given by the Computer Centre with the agreement of the Standing Committee. 14. Only results following the officially adopted nomenclature will be taken into consideration by the Computer Centre, excepting that laboratory nomenclature may be used for new or experimental reagents and polymorphic protein and DNA types.

15. In reporting their results, laboratories should make clear for every reagent (antibody, serum, lectin, DNA clone, oligonucleotide, etc.) and test whether it is the same as that used routinely in their typing programmes.

16. Where a laboratory is using a reagent obtained from another laboratory, this should be made clear in the report of the results.

17. In electrophoretic systems, where a technique is being used that allows the separation of gene products in addition to those on the current list of accepted nomenclature, these results should be reported separately and in addition to results obtained using the standard technique.

18. The origin of a serological reagent (i.e. alloimmune, heteroimmune, monoclonal, colostrum, lectin, etc) should be indicated in the report of the results. When a reagent consists of monoclonal antibodies a full description of the cell line producing the antibodies (origin, parental, myeloma, species immunized, immunogen, present location of

cell line, isotype, relevant publication, availability to other workers, etc) should be available to all interested participants in the Comparison Test. The source, the availability, and preferably the sequence of all DNA hybridization probes should be indicated, along with the conditions of hybridization. For polymerase chain reactions, the primer sequence(s) and conditions of DNA amplification should be indicated. For DNA typing systems, the conditions of the entire typing procedure should be described.

Compilation of the Results

19. The Duty Laboratory shall provide the Computer Centre with a copy of the known blood groups, lymphocyte types, electrophoretic markers, DNA polymorphisms etc of the sampled animals in a form agreed on in advance by the Standing Committee in charge of supervising any particular series of Comparison Tests. This information should be included with the compilation of comparison test results that are mailed out to participating laboratories.

20. The Duty Laboratory should provide all participants with a copy of a short summary of the results with comments and suggestions. This short summary should be discussed at a special session during the next regular conference of the Society. Based on the conclusions of this session, an overall summary should be established by the Standing Committee and reported to the Society.

The Duty Laboratory should also provide the Secretary of the Society and the Chairperson of the Standing Committee with a written report on problems in communication, shipping and expenses and on other general information with regard to the Comparison Test.

21. Compilation results of any Comparison Tests are confidential and shall be made available only to those Institutional members that participated in the particular Comparison Tests and submitted results of their tests in accordance with item 13.