

Terms of Reference for Research Subcommittee of the International Embryo Technology Society (IETS) Health and Safety Advisory Committee (HASAC)

1. Preamble

The activities of the Research Subcommittee of the IETS HASAC (previously the Import/Export Committee) were formally begun at the 10th International Congress on Animal Reproduction and Artificial Insemination in 1984. Collectively, members of this subcommittee possess expertise relevant to disease risks associated with reproductive technologies in a variety of animals but especially in the traditional livestock species. The Subcommittee advises and responds to IETS members' concerns relative to sanitary aspects of reproductive technologies. It maintains a current database on knowledge about embryo-pathogen interactions and serves as a resource of information for other HASAC subcommittees. It also submits recommendations to the Board of Governors (the Board) with a view to providing guidance and advice to international agencies, such as those of the Food and Agriculture Organisation and the World Animal Health Organisation (OIE).

2. Mission Statement

To regularly review all scientific literature relevant to infectious disease risks associated with embryo transfer and related technologies.

To assist the other HASAC subcommittees in developing guidelines for the safe and effective production, storage, movement and transfer of embryos.

To make available to the IETS membership and others via the IETS website a comprehensive summary of published scientific papers relating to the risks of disease transmission via embryo production and transfer.

To help promote dependable quality controls for the safe, effective and efficient production, storage, movement and transfer of embryos.

3. Scope

The work of this Subcommittee is largely focused on currently applied reproductive technologies in livestock but requires that members have a thorough awareness of emerging trends in the epidemiology of infectious diseases and technologies in reproduction. Specific work of the Subcommittee includes:

- a. Maintaining a database (The Research Update) of all scientific publications relating to the risk of disease transmission via embryo transfer and related technologies.
- b. Meet yearly, i.e., in January immediately prior to the IETS Annual Conference to liaise with and assimilate concerns of the IETS membership and to deal with general business.

- c. Have discussions during the year via the secure HASAC Discussion Forum (<https://apps.fass.org/IETS/hasac-comm-forum/discussion.asp>) to review the Research Update and to make recommendations to the Parent Committee (HASAC) based on this review.
- d. To keep confidential information yet to be published. This includes unpublished government reports and unpublished scientific articles or reviews. [NOTE: Subcommittee meetings relating to the Update are closed to non-committee members].
- e. Make the Research Update available to all current members of the IETS via the IETS Homepage
- f. Receive and act on requests from the Board of Governors, Parent Committee or its Subcommittees.

4. Protocols for Literature Search

To assist in standardising literature search procedures, the Research Subcommittee recommends a standard search procedure utilizing the search terms as indicated below in the search engines:

- a. Pubmed (<https://www.ncbi.nlm.nih.gov/pubmed>) and
- b. Web of science (<https://clarivate.com/webofsciencegroup/solutions/web-of-science/>).

For Pubmed the literature search will constitute click on the publication dates and specify the current year, put in the range from Jan 1, 202x to Dec 31, 202x (change with the year of the search), click on other animals, click on subjects and select Veterinary Medicine and in search bar *type in Embryo pathogens OR embryonic pathogens* or search under *Embryo pathogens OR embryonic pathogens OR oocyte OR semen*. Additional search terms can be utilized below in the search engines but with Pubmed will result in papers that are not specific to embryonic pathogens.

Literature that has been accepted for publication but not published within the year of evaluation may be added to the literature review if the journal or book has agreed to allow for dissemination to the Research Subcommittee for review. It is understood that only members of the Research Subcommittee will review unpublished articles and that there will be no dissemination of the unpublished manuscripts.

Search Terms for manuscripts and journals

Option 1

sheep OR goat OR ovine OR caprine OR ewe OR ram Or does OR buck OR bovine OR cattle OR cow OR bull OR equine OR horse OR porcine OR pig OR sow OR cervine OR deer OR (other animal species of interest) OR animal OR animals OR ruminant OR ruminants OR wildlife OR buffalo OR bison

AND mammal AND

embryo OR embryos OR in vitro OR in vivo OR in-vitro OR in-vivo OR oocyte OR ovum OR oocytes OR transfer OR genetic material OR germplasm OR germ cell OR foetus OR fetus OR placenta OR gamete OR spermatozoa OR follicular fluid OR Sperm OR ovum OR seminal

fluids OR seminal plasma OR zona pellucida OR fertilisation OR capsule OR embryonic OR clone OR transgenic

AND

· *(pathogen list) OR pathogen OR virus OR bacteria OR TSE OR prion OR infection OR detection OR detect OR transmission OR transmit OR disease OR spread OR exposure OR removal OR wash OR washing OR sanitation OR sanitary OR mycoplasma OR fungus*

AND

· (2020)

Option 2

sheep OR goat OR ovine OR caprine OR ewe OR ram Or does OR buck OR bovine OR cattle OR cow OR bull OR equine OR horse OR porcine OR pig OR sow OR cervine OR deer OR mammal OR animal OR animals OR ruminant OR ruminants OR wildlife OR buffalo OR bison

AND

Embryo pathogens OR embryonic pathogens OR oocyte OR ovum OR oocytes OR transfer OR genetic material OR germplasm OR germ cell OR foetus OR fetus OR placenta OR gamete OR spermatozoa OR follicular fluid OR Sperm OR ovum OR seminal fluids OR seminal plasma OR zona pellucida OR fertilization OR capsule OR embryonic OR clone OR transgenic

AND

pathogen OR virus OR bacteria OR TSE OR prion OR infection OR OR mycoplasma OR fungus

AND (2020)

Option 3

Embryo pathogens OR embryonic pathogens OR oocyte OR ovum OR oocytes OR genetic material OR germplasm OR germ cell OR foetus OR fetus OR placenta OR gamete OR spermatozoa OR follicular fluid OR Sperm OR ovum OR seminal fluids AND pathogen OR virus OR bacteria OR TSE OR prion OR infection OR OR mycoplasma OR fungus

Option 4

Utilize when there have to be characters of 250 or under.

embryo OR oocyte OR ovum OR germplasm OR germ cell OR foetus OR fetus OR gamete OR spermatozoa OR follicular fluid OR sperm OR seminal fluids OR seminal plasma OR zona pellucida OR fertilisation OR clone OR transgenic AND pathogen OR virus OR bacteria OR prion OR infection OR fungus AND 2019

Option 5

pathogen AND virus OR bacteria OR prion OR infection OR fungus OR transmission AND embryo OR oocyte OR ovum OR germplasm OR germ cell OR foetus OR fetus OR gamete OR spermatozoa OR follicular fluid OR sperm OR seminal fluids OR seminal plasma OR zona pellucida OR fertilisation OR clone OR transgenic

Option 6

Embryo pathogens OR embryonic pathogens OR oocyte OR ovum OR oocytes OR germplasm OR germ cell OR foetus OR fetus OR placenta OR gamete OR spermatozoa OR follicular fluid OR Sperm OR seminal fluids AND virus OR bacteria OR TSE OR prion OR infection OR OR mycoplasma OR fungus

Option 7

Embryonic pathogens AND oocytes AND semen

Search Terms

prions; ovum; fungi; fertility; fertilization; cloning, organism; semen; fetus; transgenes; follicular fluid; germ cells; infections; oocytes; clone cells; bacteria; spermatozoa; zona pellucida; viruses; fertilizers; embryonic structures; virulence

Subheading: pathogenicity; microbiology; virology

5. Structure

See Parent Committee terms of reference.

6. Appointment and Process

The chairperson of the Research Subcommittee is suggested by the chairperson of the Parent Committee (HASAC) and confirmed by the Board. After confirmation, the chairperson may serve for a period of 5 years, renewable.

Members are selected on the basis of their scientific expertise and interest in the epidemiology of reproductive technologies (including expertise in risk analysis) and must be prepared to attend meetings regularly. An effort is made to include members from different countries and regions with active embryo transfer programs and to include members with varied but relevant scientific backgrounds.

7. Supporting Structure

See Parent Committee terms of reference.

8. Frequency and Location of Meetings

The Research Subcommittee meets annually. The venue is the Annual Conference of the IETS.

9. Support

Most administrative services are provided at the institution of the chairperson of the subcommittee and at no cost to the IETS. Limited administrative support is provided from the IETS business office. Limited financial support for travel of members to meetings can be arranged through the chairperson of HASAC, depending on the budget allocated by the Board.