Recommendations for abstract submission

Please send your abstract proposal in WORD format to the AETE secretary by mail. This abstract needs to be submitted by May 15th at the latest to ensure its reviewing, correction and adaption when necessary, and inclusion in the proceedings.

The main programme is made up of invited lectures. In addition the authors of selected abstracts will be invited to present their abstracts as a *short oral communication*. If you are not willing to have a short oral presentation, please state explicitly when submitting your abstract.

You will be informed by the Board about the acceptance of the abstract.

Please note, once your abstract has been accepted it is expected that at least one of the (co-) authors should present the results by a poster at the conference.

The abstract will be published in the AETE Proceedings 2011. Although a general adaptation of the abstract will be performed it is necessary to meet the following recommendations:

Size of the abstract	**1 page**
Fonts	**12 pt, Arial**
Spaces	**1.0 to 1.5**
Content	**Title (incl. the species)** **Authors Affiliation** **Abstract text**
Margin	**2.54 cm/1 inch**
Ultimate Deadline	**15th May 2011**
E-mail:	**urban.besenfelder@boku.ac.at**

Example:

SEXING AND DIRECT TRANSFER OF BOVINE BIOPSIED FROZEN-THAWED EMBRYOS UNDER ON-FARM CONDITIONS IN A COMMERCIAL PROGRAM

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Embryo sexing is used in France since the 1990's by using a PCR method based on a specific Y DNA sequence (INRA patent 1987). The sexing procedure was progressively simplified within the last 5 years by the R&D department of UNCEIA to facilitate its on-farm use. The present protocol (centrifugation of tubes containing biopsy cells, denaturation of DNA, addition of the reaction mix, amplification of sequences of interest by PCR, sample deposit on gel and electrophoresis) allows the identification of the sex of embryos within 140 min. This study describes on field results with this technique obtained by a large selection unit from the south of France (MIDATEST ET team) between January 2000 and February 2007 and the variation factors influencing pregnancy rates following transfer of biopsied frozen-thawed embryos.

A total of 979 Day 7 bovine embryos were biopsied by a single operator with a steel blade attached to a micromanipulator and frozen using ethylene glycol (1.5 M) plus fetal calf serum (40%, n=232, EG-FCS) from 2000 to 2004 or sucrose (0.1%, n=747, EG-S) since 2004. Embryos were collected from 171 sessions by conventional techniques (donor cows inseminated twice on observed oestrus following a standard superovulatory treatment and collected on Day 7). Embryos (n=319) were thawed (straws in air for 5-10 s and in a water bath for 30 s) and directly transferred. Pregnancy was assessed by ultrasonography following transfer of 246 biopsed frozen thawed embryos. Significant sources of variation of pregnancy rates were analysed with a multivariate logistic regression model (factors with $p<0.1$ from univariate analysis were kept for further multivariate analysis).

On average, 5.8±0.3 embryos were biopsed and frozen per session, corresponding to 41% of the total number of embryos (maximum of 19 biopsed embryos ; 1rst and 3rd quartiles averaged 3 and 7 embryos respectively). Most of the micromanipulated embryos were at the morulae stage (stage 4 : 69.2% ; 5 : 20.4% ; 6-8 : 10.2% according to IETS criteria). From those 44.8% were females and 50 % were males (5.2 % sex undetermined, low amplification of the autosomal sequence). The rate of determination was inversely related to the numbers of cells of the biopsy (≤3 cells (n=83) : 14.5% ; 4-6 cells (n=432) : 2.6% ; ≥7 cells (n=255) : 0% ; $p<0.05$), which averaged 5.8±0.6 and ranged from 1 to 10 cells. Embryos were frozen 150±1 minutes after recovery. Pregnancy rate averaged 47.2% and was mainly influenced by parity of recipients (heifers (n=205): 51.7% vs cows (n=38): 26.3%, $p<0.05$). The EG-S freezing protocol was found significant in increasing pregnancy rates from the univariate analysis (EG-S vs EG-FCS, + 13%, $p<0.05$). However, this factor was not found significant from the multivariate model. No significant effects of embryo stage (4 = 47.3%, 5 = 48.7%, 6-8 = 62.5%), interval between flushing and freezing (<120 min = 42%, 120-179 min = 47.6%, 180-300 min : 49.5%), number of micromanipulated embryos per flush (≤5 : 47.1%, 6-10 : 48.2%, ≥11 : 45.1%) were observed.

Altogether, these results confirm that this embryo sexing procedure is efficient when applied from biopsies containing 4 cells or more. Direct transfer of micromanipulated frozen-thawed embryos led to obtain similar pregnancy rates as intact frozen embryos. This confirms that heifers should be used preferentially as recipients. The positive effect of sucrose in the freezing medium remains to be confirmed under controlled conditions.

Please use *Arial symbols/characters* also for international standard units otherwise standardising the abstracts for the proceedings may actually cause the loss of any symbol. Due to limited space and resolution it is recommended not to use figures.

For further information please see also the Proceedings of the last AETE conference in 2010: http://www.aete.eu/publications.php