

## 1. Institution

Centre for Artificial Insemination and Embryo Transfer  
Vienna University for Veterinary Sciences (Vetmeduni Vienna)  
1210 Vienna  
Austria

## 2. Principal investigator and contact person

Dr. Christine Aurich

## 3. Key personnel

NAME	EMAIL	RESEARCH AREA DETAILS
Dr. Christine Aurich	<a href="mailto:Christine.aurich@vetmeduni.ac.at">Christine.aurich@vetmeduni.ac.at</a>	Main research: early embryonic development, conceptus-maternal interaction, semen conservation, gonadal function, parturition Main species: equine, canine
Dr. Sven Budik	<a href="mailto:Sven.budik@vetmeduni.ac.at">Sven.budik@vetmeduni.ac.at</a>	Early embryonic development in the horse Oocyte maturation
Martin Köhne, DVM		PhD student

## 3. Research profile

Christine Aurich: DVM Hannover Veterinary School, Germany, 1990; Doctor med vet Hannover Veterinary School, Germany, 1992; Habilitation Hannover Veterinary School, Germany, 1997; Head of Centre for Artificial Insemination and Embryo Transfer, University for Veterinary Sciences, Vienna, Austria, 1999; Founding Diplomate of the European College of Animal Reproduction (ECAR), 2000; Head of the Graf Lehndorff-Institute for Equine Science (University of Veterinary Sciences Vienna, Austria, and Brandenburg State Stud, Neustadt (Dosse), Germany, 2007; Head of the Clinic for Horses, University for Veterinary Sciences, Vienna, Austria, 2010.

## 4. Key technologies and tools

Embryo production (in vivo) in horses

Embryo culture (in vitro)

Gene expression in endometrium and embryo (mRNA, protein level): PCR, qualitative, quantitative), immunohistology (in cooperation with the Institute for Histology at Vetmeduni Vienna), protein analysis

Semen analysis (compute-assisted techniques, flow cytometry)

## 5. Selected publications (max. 5)

- Beckelmann, J; Budik, S; Helmreich, M; Palm, F; Walter, I; **Aurich, C**: Sex-dependent insulin like growth factor-1 expression in preattachment equine embryos. *Theriogenology* (in press)
- Herrera-Luna, C; Budik, S; **Aurich, C**: Gene expression of ACTH, glucocorticoid receptors, 11 $\beta$ HSD enzymes, LH-, FSH-, GH receptors and aromatase in equine epididymal and testicular tissue. *Reprod Domest Anim.* (in press)
- Herrera-Luna, C; Budik, S; Helmreich, M; Walter, I; **Aurich, C**: Expression of 11 $\beta$ hydroxysteroid dehydrogenase type 1 and glucocorticoid receptors in reproductive tissue of male horses at different stages of sexual maturity. *Reprod Domest Anim.* (in press)
- Beckelmann, J; Budik, S; Bartel, C; **Aurich, C**: Evaluation of Xist expression in preattachment equine embryos. *Theriogenology*. 2012 78:1429-1436.
- Budik, S; Palm, F; Walter, I; Helmreich, M; **Aurich, C**: Increasing expression of oxytocin and vasopressin receptors in the equine conceptus between days 10 and 16 of pregnancy. *Reprod Fertil Dev* 2012 24:641-648.