

## 1. Institution

Division of Reproduction, Department of Clinical Sciences, Faculty of Veterinary Medicine and Animal Science, Swedish University of Agricultural Sciences, PO Box 7054, SE-750 07 Uppsala, Sweden.  
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## 2. Principal investigator and contact person

Contact person: Ann-Sofi Bergqvist [ann-sofi.bergqvist@kv.slu.se](mailto:ann-sofi.bergqvist@kv.slu.se)

Principal investigator: Heriberto Rodriguez-Martinez [heriberto.rodriguez@kv.slu.se](mailto:heriberto.rodriguez@kv.slu.se)

## 3. Key personnel

Renee Båge	<a href="mailto:Renee.bage@kv.slu.se">Renee.bage@kv.slu.se</a>	Female reproductive physiology and pathology
Jane Morrell	<a href="mailto:Jane.Morrell@kv.slu.se">Jane.Morrell@kv.slu.se</a>	Andrology, sperm selection
Margareta Wallgren	<a href="mailto:Margareta.wallgren@kv.slu.se">Margareta.wallgren@kv.slu.se</a>	Andrology, sperm function, cryobiology
Ann-Sofi Bergqvist	<a href="mailto:Ann-sofi.bergqvist@kv.slu.se">Ann-sofi.bergqvist@kv.slu.se</a>	Oviduct function, proteomics, IHC
Fernando Saravia	<a href="mailto:Fernando.saravia@kv.slu.se">Fernando.saravia@kv.slu.se</a>	Cryobiology
Ylva Brandt	<a href="mailto:Ylva.brandt@kv.slu.se">Ylva.brandt@kv.slu.se</a>	Oviduct function, IVF
Anders Johannisson (assoc Dept of AFB)	<a href="mailto:Anders.johannisson@afys.slu.se">Anders.johannisson@afys.slu.se</a>	Flow cytometry, cell analysis

## 4. Research profile

The major research interests of the laboratory group are the interactions of gametes and embryos with the maternal environment. There is a particular interest in spermatology and sperm-tubal interactions in domestic animals as well as in the loss of fertilizing capacity of cryopreserved spermatozoa. Development of diagnostic tools and methods for sperm structure and function go along with the development of novel methods for sperm selection and cryopreservation for assisted reproductive techniques, particularly AI. As well, there is a long-lasting interest in the reasons behind reproductive wastage in dairy cattle and pigs in relation to environmental and production cues. The group is particularly keen in performing in vivo-studies (cattle, pigs) albeit proficiency has been demonstrated for in vitro-models.

## 5. Key technologies and tools

Tissue and cell analyses, including LM, IHC, LSCM and EM - Flow cytometry - Computer-assisted sperm analysers – Cryobiology (incl x-ray microanalysis) - Tissue culture and oviduct epithelial cell cultures – IVF/IVC – Proteomics - Facilities for animal research and IVF.

## 6. Selected publications (max. 5)

R. Båge, W.T.K. Bosu and H. Rodríguez-Martínez. Ovarian follicle apoptosis at the onset of standing estrus in virgin and repeat breeder dairy heifers. *Theriogenology* 2001, 56, 5, 699-712).

R Båge, H Gustafsson, B Larsson, M Forsberg and H. Rodríguez-Martínez. Repeat breeding in dairy heifers: follicular dynamics and oestrous cycle characteristics in relation to sexual hormone patterns. *Theriogenology* 2002;57:2257-2269.

R. Båge, B Masironi, L Sahlin and H Rodríguez-Martínez. Deviant peri-oestral hormone patterns affect the lining oviductal epithelium in repeat-breeder heifers. *Journal of Reproduction, Fertility and Development* 2002, 14, 461-469.

Båge R, Petyim S, Larsson B, Hallap T, Bergqvist AS, Gustafsson H, Rodriguez-Martinez H. Oocyte competence in repeat-breeder heifers: effects of an optimized ovum pick-up schedule on expression of

oestrus, follicular development and fertility. *Reproduction Fertility and Development* 2003 Jul 4;15(2):115-123.

Petyim, S., Båge, R., Hallap, T., Bergqvist, A.-S., Rodríguez-Martínez, H., Larsson, B. Two different schemes of twice-weekly ovum pick-up in dairy heifers: effect on oocyte recovery and ovarian function. *Theriogenology* 2003, 60, 175-188.