

### 1. Institution

Department of Anatomy, Physiology and Biochemistry, Faculty of Veterinary Medicine and Animal Sciences, SLU, Uppsala, Sweden

### 2. Principal investigator and contact person

Associate Professor Anders Johannisson (Anders.Johannisson@afb.slu.se)

### 3. Key personnel

Anders Johannisson	<a href="mailto:Anders.Johannisson@afb.slu.se">Anders.Johannisson@afb.slu.se</a>	Flow cytometry and related techniques
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### 4. Research profile

In close collaboration with scientists at the Dept of Clinical Sciences, SLU, I work with developing and applying techniques for analysis of properties of spermatozoa and their environment. Several different species are under study, e.g. Cattle, Pigs, Horses and Swamp Buffaloes.

### 5. Key technologies and tools

Flow cytometry, both standard flow cytometry and multiplex measurement of soluble analytes. Fluorometry. Equipment: Multiplex flow cytometer Bioplex 100, Analysing Cytometer LSR, Sorting Cytometer FACStarPLUS.

### 6. Selected publications (max. 5)

Sperm capacitation in the porcine oviduct. Paisan Tienthai, Anders Johannisson and Heriberto Rodriguez-Martinez. *Anim Reprod Sci* 80, 131-146, 2004.

Boar spermatozoa in the oviduct. Heriberto Rodríguez-Martínez, Fernando Saravia, Margareta Wallgren, Paisan Tienthai, Anders Johannisson, Juan M. Vázquez, Emilio Martínez, Jordi Roca, Libia Sanz and Juan J. Calvete. *Theriogenology* 63, 514-535, 2005.

In vitro capacitation of bull spermatozoa by oviductal fluid and its components. Ann-Sofi Bergqvist, Joan Ballester, Anders Johannisson, Marta Hernandez, Nils Lundeheim and Heriberto Rodriguez-Martinez. *Zygote* 14, 259-273, 2006.

Heparin and dermatan sulphate induced capacitation of frozen-thawed bull spermatozoa measured by merocyanine-540. Ann-Sofi Bergqvist, Joan Ballester, Anders Johannisson, Nils Lundeheim and Heriberto Rodriguez-Martinez. *Zygote* 15, 225-232, 2007.