1. Institution

Senior lecturer, responsible for reproductive medicine and applied biotechnologies in pigs; Unit for Reproductive Medicine of Clinics and Clinic for Pigs and Small Ruminants, University of Veterinary Medicine Hannover, Bünteweg 15, D-30559 Hannover, Germany
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2. Principal investigator and contact person

Dagmar Waberski (dagmar.waberski@tiho-hannover.de)

3. Key personnel

Heiko Henning	heiko.henning@tiho-hannover.de	Spermatology

4. Research profile

The main research interests are spermatology and the interaction between semen and the female tract using the pig as model. Research in spermatology includes sperm physiology, sperm assessment, semen preservation, and studies on the relationship between sperm quality and fertility. The Hannover Gilt Model is used as a biomonitor for fertilization capacity in vivo. Studies on the interaction between sperm/semen and the female tract focuses on sperm selection and on local immunological responses to insemination. Various gilt models are used for in vivo studies. Research is performed in collaboration with other members of the Unit for Reproduction and with the Institute of Immunology of the University of Veterinary Medicine.

5. Key technologies and tools

Advanced spermatological methods, such as flow cytometry, computer-assisted semen analysis, oviduct binding assay, volume regulation- various pig animal models – sonography of the female genital tract – Doppler sonography of genital blood flow in sows-

6. Selected publications (max. 5)

Ardon F., Helms D., Sahin E., Bollwein H., Töpfer-Petersen E., Waberski, D. (2008): Chromatin-unstable boar spermatozoa have little chance of reaching oocytes in vivo. Reproduction 2008 (in press)

Waberski, D., Döhring, A., Ardon, F., Ritter, N., Zerbe, H., Schuberth, H.J., Hewicker-Trautwein, M., Weitze, K.F., Hunter, R.H.F. (2006): Physiological routes from intra-uterine seminal contents to advancement of ovulation. Acta Veterinaria Scandinavica 2006, 48: 13 Published online 2006 August 3. doi: 10.1186/1751-0147-48-13

Waberski, D., Magnus, F., Ardon, F., Petrunkina, A.M., Weitze, K.F., Töpfer-Petersen, E. (2006): Binding of boar spermatozoa to oviductal epithelium in vitro in relation to sperm morphology and storage time. Reproduction 131, 311-318

Ardon F., Evert, M., Beyerbach, M., Weitze, K.F., Waberski, D. (2005): Accessory spermatozoa: a biomonitor of boar sperm fertilization. Theriogenology 63, 1891-1901

Petrunkina, A.M., Volker, G., Brandt, H., Töpfer-Petersen, E., Waberski, D. (2005): Functional significance of responsiveness to capacitating conditions in boar spermatozoa. Theriogenology 64, 1766-1782