

1. Institution

Institute of Animal Physiology, Slovak Academy of Sciences, Soltesovej 4-6, Kosice, Slovakia
<http://www.saske.sk/UFHZ>

2. Principal investigator and contact person

Juraj Koppel, DVM, PhD, Associate Professor, koppel@saske.sk

3. Key personnel

NAME	EMAIL	RESEARCH AREA DETAILS
Stefan Cikos, Dr, PhD	cikos@saske.sk	membrane receptors and signaling in preimplantation embryo
Dusan Fabian, DVM, PhD	fabian@saske.sk	embryo physiology, apoptosis

4. Research profile

In the area of the regulation of oocyte growth and preimplantation embryo development we are analyzing complex molecular interactions determining physiological processes during ontogenesis. The primary animal model is mouse.

5. Key technologies and tools

In vitro tissue and cell culture, animal models in vivo, gene and protein expression.

6. Selected publications (max. 5)

FABIAN, Dusan - KOPPEL, Juraj - MADDOX-HYTTEL, P. Apoptotic process during mammalian preimplantation development. In *Theriogenology*, 2005, vol. 64, p. 221-231.

CIKOS, Stefan - REHAK, Pavol - CZIKKOVA, Sona - VESELA, Jarmila - KOPPEL, Juraj. Expression of adrenergic receptors in mouse preimplantation embryos and ovulated oocytes. In *Reproduction*, 2007, vol. 133, no. 6, p. 1139-1147

FABIAN, Dusan - CIKOS, Stefan - KOPPEL, Juraj. Gene Expression in Mouse Preimplantation Embryos Affected by Apoptotic Inductor Actinomycin D. In *Journal of reproduction and development*, 2009, vol. 55, no. 5, p. 576-582.

CIKOS, Stefan - BURKUS, Jan - BUKOVSKA, Alexandra - FABIAN, Dusan - REHAK, Pavol - KOPPEL, Juraj. Expression of adiponectin receptors and effects of adiponectin isoforms in mouse preimplantation embryos. In *Human reproduction*, 2010, vol. 25, no. 9, p. 2247-2255.

FABIAN, Dusan - BYSTRIANSKY, Jan - CIKOS, Stefan - BUKOVSKA, Alexandra - BURKUS, Jan - KOPPEL, Juraj. The effect on preimplantation embryo development of non-specific inflammation localized outside the reproductive tract. In *Theriogenology : international journal of animal reproduction* *Theriogenology* (Los Altos), 2010, vol. 74, p. 1652-1660.