

1. Institution

Institute of Animal Reproduction and Food Research of Polish Academy of Sciences, Division of Reproductive Endocrinology and Pathophysiology, Division of Reproductive Histophysiology, Tuwima 10, 10-747 Olsztyn, Poland

2. Principal investigator and contact person

Aneta Andronowska (aneta@pan.olsztyn.pl)

3. Key personnel

Name	e-mail	Research tasks
Aneta Andronowska, assistant prof.	aneta@pan.olsztyn.pl	Expression of NOS isoforms and growth factors in the porcine reproductive organs.
Marcin Chruściel, Ph.D. student	chrustm@pan.olsztyn.pl	Gen expression of angio- and arteriogenic factors in the porcine umbilical cord and isolated venous endothelial cells of umbilical cord (<i>in vitro</i> study)

4. Research profile

The laboratory performs studies mainly on expression and localization of NOS isoforms and growth factors in the porcine reproductive organs through the estrous cycle and pregnancy. The recent focused is on: 1. the influence of RLX, IGF & LH on VEGF expression in the endothelium of porcine umbilical cord, 2. regulation of VEGF expression in the porcine oviduct, 3. expression of VEGF, FGF and their receptors in the umbilical cord blood vessels and 4. the influence of steroid hormones on NO production in the gravid uterus of the pig.

5. Key technologies and tools

proteomika, metabolomika, cell and tissues culture, histo- and immunohistochemistry, general histology, skaning and transmission electron microscopy

6. Selected publications

Andronowska A, Chruściel M (2008) Influence of estradiol-17 β and progesterone on nitric oxide production in the porcine endometrium during first half of pregnancy. *Reproductive Biology* 8(1), 43-55.

Chruściel M, Andronowska A, Postek A (2008) Expression patterns of endothelial and inducible nitric oxide isoforms in the porcine umbilical cord. *Reproduction in Domestic Animals (in print)*

Andronowska A, Chruściel M (2008) Expression and cellular distribution of NADPH-d and nitric oxide synthases in the porcine uterus during early pregnancy. *Folia Histochemica et Cytobiologica* 45(4), 375-380.

Postek A, Andronowska A, Chruściel M, Jankowska K (2007) Expression of VEGF-A, Flt-1 and Flk-1 in the arterial endothelial cells of the broad ligament of the uterus through the estrous cycle. *Cell & Tissue Research* 330(2), 313-319.

Andronowska A, Wąsowska B, Całka J, Doboszyńska T (2005) Localization and correlation between NADPH-d and nitric oxide synthase isoforms in the porcine uterus during the estrous cycle. *Cell & Tissue Research* 321, 243-250.