

## 1. Institution

Institut of Reproduction, Faculty of Veterinary Medicine, Ss Cyril and Methodius University,  
Lazar Pop Trajkov 5-7 1000 Skopje, R Macedonia

## 2. Principal investigator and contact person

Toni Dovenski [dovenski@fvm.ukim.edu.mk](mailto:dovenski@fvm.ukim.edu.mk) +389 70 258989

Teacher in Animal Reproduction and Vice Dean for Science

## 3. Key personnel

| NAME                      | EMAIL  | RESEARCH AREA DETAILS                                      |
|---------------------------|--|--|
| Plamen Trojacanec         | <a href="mailto:plament@fvm.ukim.edu.mk">plament@fvm.ukim.edu.mk</a>   | Functional integrity of the sperm plasma membrane, Surgery |
| Vladimir Petkov           | <a href="mailto:petkov@fvm.ukim.edu.mk">petkov@fvm.ukim.edu.mk</a>     | Sperm cryopreservation                                     |
| Florina Popovska Percinic | <a href="mailto:florinap@fvm.ukim.edu.mk">florinap@fvm.ukim.edu.mk</a> | Embryologist   |

## 4. Research profile

The scientific research at the Faculty has been designed to the investigation of Physiological, Biochemical and cellular mechanisms of detection of important infective and parasitic diseases, developing systems and methods for cryopreservation of gametes, production, manipulation and cryopreservation of embryos, developing and introducing novel technologies for assisted reproduction, introduction of methods for ultrasound diagnostics and treatment of infertility, detection and treatment proposal for herd health and production management problems on dairy, poultry, small ruminants and pig farms. The Faculty is involved in the education of students in the 5.5-year graduate curriculum for Doctors of Veterinary Medicine according ECTS, as well as postgraduate courses.

Institute of Reproduction has carried out several research project in the field of animal reproduction, especially in area of Assisted reproductive Biotechnologies, such as Embryo Transfer and In-vitro Fertilization in ruminants, laparoscopic intrauterine insemination of sheep and goats, ultrasonography of reproductive organs in small and large animals, semen cryopreservation and analysis for prediction of in vitro and in vivo fertility etc.

## 5. Key technologies and tools

Reproductive biotechnology (A.I., estrous synchronization, Embryo transfer, IVM/IVF/IVC, OPU) and endocrinology, Gametes cryopreservation, Reproductive disorders (infertility in farm animals), Ultrasonography of reproductive organs, Herd health and production management in dairy cows, sheep and goats

## 6. Selected publications (max. 5)

1. In vitro fertilization potencial correlates with mechanical and functional integrity of the sperm plasma membrane, Trojacanec P., Kocoski Lj., Dovenski T., Petkov V., Popovski K., Trojacanec Snjezana, Andonov S., 14th International Congress on Animal Reproduction (ICAR), abst. 2:15, 2-6 July, 2000, Stockholm, Sweden.
2. Monitoring of ovarian responses in dairy cows with cysts by ultrasonography and plasma progesterone profile, T. Dovenski, N. Ivancev, P. Trojacanec, Lj. Kocoski, K. Popovski, G. Mickovski S. Veselinovic, Anica Ivancev, D. Mirkovic R. Ickov, Reproduction in Domestic Animals, Vol. 37, No 4, (abstr. P.1.33), 2002
3. Artificial induction of lactation and following pregnancy rate in dairy cows, Lj. Kocoski, Z. Najdovski, T. Dovenski, P. Trojacanec, 15. ICAR, Astr.114, Porto Seguro, Brazil 2004
4. Effect of norgestomet on successful resumption of ovarian activity in postpartum non-cyclic dairy cows, T. Dovenski, P. Trojacanec, Lj. Kocoski, K. Popovski, V. Petkov, B. Atanasov, Reproduction in Domestic Animals, 2006 Vol. 41 No 4, p. 353, 2006.
5. Efficiency of Beta-Carotene for treatment of ovarian disorders in dairy cows, T. Dovenski, P. Trojacanec, Lj. Kocoski, V. Petkov, K. Popovski, Snjezana Trojacanec, Reproduction in Domestic Animals, Vol. 42, No 2, p. 116, September, 2007