

## 1. Institution

NAGREF – Veterinary Research Institute of Thessaloniki, 57008 Ionia, Thessaloniki, Greece.

## 2. Principal investigator and contact person

Theodora Tsiligianni (tsiligianni@nagref.gr)

## 3. Key personnel

Name	Research Tasks	e-mail
<b>Senior scientists</b>		
Dr Tsiligianni Theodora, Researcher	Team Leader, Superovulation and embryo transfer (bovine), Activity of glycosidases in in vivo (bovine, ewes) and in vitro (bovine) produced embryos Cervical mucus physiochemical properties (bovine, ewes)	tsiligianni@nagref.gr
Dr Rekkas Constantinos, Researcher	Activity of specific proteolytic enzymes (plasminogen activators / plasmin proteolytic enzyme system) in reproduction	rekkas@vri.gr
Dr Vainas Emmanuel Researcher	IVM-IVF-IVC of mammalian embryos, embryo preservation	vainas@vri.gr
Dr Samartzi Fotini, Researcher	Superovulation and embryo transfer in small ruminants, IVM-IVF-IVC of mammalian embryos	samartzi@vri.gr
Dr Lymberopoulos Aristotelis Researcher	Semen technology (Bull, Ram, Goat: reproductive efficiency, structural integrity and functional competence of spermatozoa), Laparoscopic AI (ewes), Hormone assessment	lymberopoulos@vri.gr
Dr Tsakmakidis Ioannis	Semen technology (Boar: Hemizona assay, sperm staining techniques) Toxicology of Reproduction (mycotoxins)	tsakmakidis@vri.gr
Dr Belibasaki Sofia Researcher	Endocrinology of reproduction (ewes)	belibasaki@vri.gr
Dr Khalifa Tarek, post doc	Andrology of domestic animals (reproductive efficiency, structural integrity and functional competence of spermatozoa) Equine Gynaecology and Obstetrics	
<b>PhD-students</b>		
Saratsi Ekaterini	Mycotoxins and porcine embryos	
Mamali Panagiota	Anthelmintic drugs and ewe reproduction	

## 4. Research profile

Veterinary Research Institute of Thessaloniki is a research unit of the National Agricultural Research Foundation (NAGREF). It was established in 1997 for the research in a) Farm animal reproduction, b) Farm animals Health and Welfare, c) Farm animal

productivity, and d) Hygiene and technology of products of animal origin. As concern reproduction, research activities of V.R.I. cover areas such as: Physiology and pathophysiology of reproduction, Endocrinology of reproduction, Reproductive management of farm animal herds, Biotechnological methods (sperm technology, artificial insemination, embryo transfer, in vitro embryo production, etc) in farm animal reproduction, Early Pregnancy Diagnosis (hormone assessment, ultrasonography), Preservation of genetic material (semen, embryos, etc.), Preservation of rare farm animal breeds, Cytogenetics.

## 5. Key technologies and tools

The Institute has the infrastructure and competence for in vitro embryo production, hormone and enzymes assessment, sperm technology and cryopreservation. The institute is in close cooperation with Clinic of Reproduction and Obstetrics, Veterinary Faculty, University of Thessaly, Karditsa.

## 6. Selected publications (max. 5)

- (1) **Tsiligianni Th**, Vandaelen L, de Kruif A, Van Soom A. Role of two glycosidases ( $\alpha$ -mannosidase and  $\beta$ -N-acetylglucosaminidase) on in vitro bovine embryonic development. *Reproduction in Domestic Animals* 41(2):149-152 (2006).
- (2) G.S. Amiridis, **Th. Tsiligianni**, E. Vainas. Follicle ablation improves the ovarian response and the number of collected embryos in superovulated cows during the early stages of lactation. *Reproduction in Domestic Animals* 41(5): 402-407 (2006).
- (3) **Th. Tsiligianni**, L. Vandaelen, A. de Kruif, A. Van Soom. Effects of culture-medium supplementation with  $\alpha$ -mannosidase and/or  $\beta$ -N-acetyloglucosaminidase on in vitro bovine embryonic development. *Animal Reproduction Science* 99(1-2): 208-212 (2007)
- (4) **Th. Tsiligianni**, G.S. Amiridis, E. Vainas. Glycosidases activity ( $\beta$ -N-acetyloglucosaminidase,  $\alpha$ -mannosidase and  $\beta$ -galactosidase) in the uterine luminal fluid of cows after multiple ovulation. *Canadian Journal of Veterinary Research* 71(4):300-4 (2007).
- (5) **Th. Tsiligianni**, A. Karagiannidis, P. Brikas, Ph. Saratsis. Physical properties of bovine cervical mucus during normal and induced by progesterone and/or PGF<sub>2alpha</sub> estrus. *Theriogenology* 55 (2):629-640 (2001).