

1. Institution

University of Teramo, Faculty of Veterinary Medicine, Piazza A, Moro 45, 64100, Teramo, Abruzzo, Italy

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2. Principal investigator and contact person

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Key personnel

Grazyna Ptak	gptak@unite.it	Embryology & cell culture
Piero Augusto Scapolo	pascalpo@unite.it	Histology & morphometry
Leonardo Della Salda	ldellasalda@unite.it	Pathology & ultrastructure
Chiara Palmieri	cpalmieri@unite.it	Pathology & immunohistochemistry
Marta Czernik	martacze@yahoo.com	Cell & molecular biology

4. Research profile

The Research Group brings together scientist with different background: embryology, embryo micromanipulation, morphology, histopathology, ultrastructure, and molecular biology applied to gamete and embryo physiology. Each Key personnel pursue highly focused topics in their specific area, but a recent common branch of research is to study the interaction between peri - and post implantation embryos and the maternal reproductive tract in normal and assisted reproduction. The studies are carried out on large animal (sheep), and are covered by funds from the Teramo University (formerly 60%), European Science Foundation, PRIN (funds from the Italian Minister of the University), European Research Council, and United States Department of Agriculture (USDA).

5. Key technologies and tools

In vitro production of embryos – somatic cell nuclear transfer – monoparental embryo production — transgenic reporter systems – complex culture systems for embryonic and somatic cells – RT-PCR – and molecular biology applied to embryology, histology and allometry, histopathology, immunofluorescence, TEM, SEM.

6. Selected publications (max. 5)

1. Loi P, Nathalie Beaujean, Saadi Khochbin, Josef Fulka Jr, & Grazyna Ptak. Asymmetric nuclear reprogramming in somatic cell nuclear transfer? *BioEssays*, 2008, 30: 66-74s.
2. Loi P, Galli C, Ptak G. Cloning of endangered mammalian species: any progress? *Trends Biotechnol.* 2007 May;25(5):195-200.
3. Matsukawa K, Turco MY, Scapolo PA, Reynolds L, Ptak G, Loi P. Development of Sheep Androgenetic Embryos Is Boosted following Transfer of Male Pronuclei into Androgenetic Hemizygotes. *Cloning Stem Cells.* 2007 Fall;9(3):374-81
4. Palmieri C, Loi P, Reynolds LP, Ptak G, Della Salda L Placental abnormalities in ovine somatic cell clones at term: a light and electron microscopic investigation. *Placenta.* 2007 May-Jun;28(5-6):577-84.
5. Ptak G, Matsukawa K, Palmieri C, Salda LD, Scapolo PA, Loi P. Developmental and functional evidence of nuclear immaturity in prepubertal oocytes. *Hum Reprod.* 2006 Jun 21; [Epub ahead of print] PMID: 16790612 [PubMed - as supplied by publisher].