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2. Principal investigator and contact person. Maria Teresa Paramio (teresa.paramio@uab.es)

3. Key personnel

NAME	EMAIL	RESEARCH AREA DETAILS
Dolors Izquierdo	Dolors.izquierdo@uab.es	Apoptosis, embryo culture
Maria Catala	Maria.catala@uab.es	Immunofluorescence, oocyte quality
Roser Romaguera	Roser.romaguera@uab.es	LOPU, in vitro embryo production
Ana Raquel Jimenez de Macedo	Anaraquel.jimenez@uab.es	ICSI, blastomer biopsy.

4. Research profile:

The laboratory is involved in In Vitro Embryo Production of sheep and goats. We are looking for criteria involving oocyte quality. Studies of oocytes from prepubertal females are our model to determine oocyte competence for embryo development. We have established non-invasive method for oocyte quality: Brilliant Cresyl Blue stain (BCB), oocyte and follicle diameter and oocyte morphology. These criteria are correlated with cellular and molecular events (MPF, MAP kinase, Cortical Granules, mitochondria, apoptosis using TUNEL and Annexin V). We compare oocytes from prepubertal and adult females in order to determine if oocyte quality is depending of donor's age or follicular development.

5. Key technologies and tools:

In vitro production of embryos from sheep and goats. LOPU. Chromosome Fluorescence In situ Hybridation (FISH), confocal laser scanning microscopy, immunofluorescence and immunohistochemistry, oocyte and embryo micromanipulation.

6. Selected publications (max. 5):

Esther Velilla, Elisabet Rodríguez-Gonzalez, Dolors Izquierdo, Francesca Vidal, Maria-Teresa Paramio. Mitochondrial organization in prepubertal goat oocytes during in vitro maturation and fertilization. *Molec Reprod Development* 2006,73: 617-626

Ana Raquel Jimenez, Dolors Izquierdo, Aixa Urdaneta, Maria-Teresa Paramio. Effect of Roscovitine on MPF and MAPK on embryo development of oocytes from prepubertal goat . *Theriogenology* 2006, 65 (9): 1769-782

Ana Raquel Jimenez, Begoña Anguita, Dolors Izquierdo, Teresa Mogas, and Maria-Teresa Paramio. Embryo Development Of Prepubertal Goat Oocytes Fertilised By Intracytoplasmic Sperm Injection (ICSI) According To Oocyte Diameter. *Theriogenology*, 2006, 66(5):1065-1072

Begoña Anguita, Ana Raquel Jimenez, Dolors Izquierdo, Teresa Mogas, and Maria-Teresa Paramio. Effect of oocyte diameter on meiotic competence, embryo development, P34 (cdc2) expression and MPF activity in prepubertal goat oocytes. *Theriogenology*, 2007 67 (3): 526-536

Begoña Anguita, Ana Raquel Jimenez, Roser Marató, Teresa Mogas, Maria-Teresa Paramio, Dolors Izquierdo. Total RNA and protein content, Cyclin B1 expression and developmental competence in prepubertal goat oocytes. *Animal Reproduction Science*, 2008, 103:290-303