題目: 畜產種原庫概況 / BioBanking

講者: Dr. Pascal Mermillod/法國農業研究院

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PhD in Belgium (Catholic University of Louvain) on carcino-embryonic markers in a Xenopus model.

Post-doc in the laboratory of Professors A. Massip and F. Dessy in the same university, obtained the first calves born in Belgium from frozen thawed in vitro produced embryos.

Recruited by Inra in 1992 with now more than 20 years experience in in vitro production of embryos from different domestic and wild species (cattle, sheep, goat, pig, deers) through in vitro maturation of primary oocytes, in vitro fertilisation and in vitro development of the resulting embryos up to the blastocyst stage. This also includes further use of these embryos (embryo quality molecular parameters, cryopreservation, preimplantation genetic diagnosis). This work has been mainly focused on the regulation of pre implantation embryo development by oviduct originated factors and on oocyte differentiation, in cooperation with ovarian somatic cells, during folliculogenesis, leading to the acquisition of its developmental potential.

The work of the team is now aimed at the study of interactions between gametes and embryos and somatic environment. The increased knowledge of oocyte differentiation and embryo physiology drawn from this work allows to improve the success rate of assisted reproductive techniques (artificial insemination, embryo production and transfer, IVF, cloning, transgenesis,...) that could be used to increase offspring of high genetic value females in domestic species and help to preserve endangered domestic breeds and wild species. Reviewer for several international journals (Theriogenology, Reproduction, Biology of Reproduction, Molecular Reproduction and Development,...) and grant agencies (France, Europe, USA, Canada,...). Leading a research team including 10 researchers and engineers and 2 technicians. Has been co director the physiology of reproduction and behaviour research unit including more than 150 permanent staff from Inra (National Institute of Agronomical Research), Cnrs (National Centre of Scientific Research) and Tours University between 2006 and 2009.