Supplementary Material

Oviduct fluid extracellular vesicles regulate polyspermy during porcine in vitro fertilisation


AUnité Mixte de Physiologie de la Reproduction et des Comportements, Institut National de la Recherche Agronomique (INRA), 37380 Nouzilly, France.

BDepartment of Physiology, Faculty of Veterinary, University of Murcia, Murcia, IMIB-Arixaca, Spain.

CLaboratoire Biologie Cellulaire et Microscopie Electronique, Faculté de Médecine, Université François Rabelais, 37000 Tours, France.

DFaculty of Bioengineering and Bioinformatics, Moscow State University, 119992, Leninskiye gory 73, Moscow, Russian Federation.

EPresent address: National University of Science and Technology ‘MISiS’, 119049, Moscow, Russian Federation.

FPresent address: University of Zurich, Genetics and Functional Genomics Group, Clinic of Reproductive Medicine, Department of Farm Animals, VetSuisse Faculty, Zurich, Switzerland.

GCorresponding author: pascal.mermillod@inra.fr

*These authors contributed equally to this paper.

Figure S1. The fertilization of oocytes by several spermatozoa (polyspermy) is a major shortfall in the success of in vitro fertilization in pig. This work showed that adding extracellular vesicles (EVs) purified from oviduct fluid into the IVF medium reduced the level of polyspermy, in the same way the fluid itself. These results contribute to highlight the role of EVs in early reproductive events.