



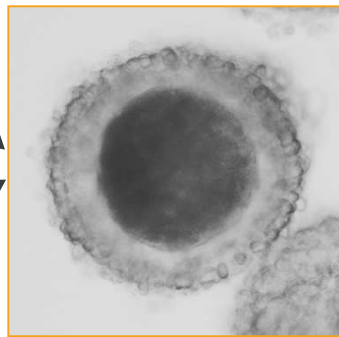
VITRIFICATION OF EQUINE IMMATURE OOCYTES

Katrien Smits, Nerea Ortiz-Escribano, Ann Van Soom

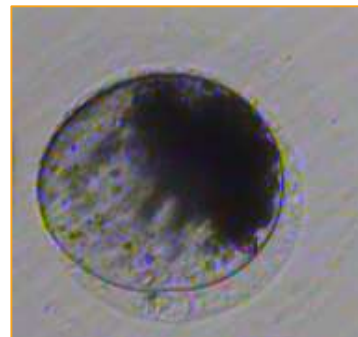
Cryopreservation in the horse



Oocyte collection



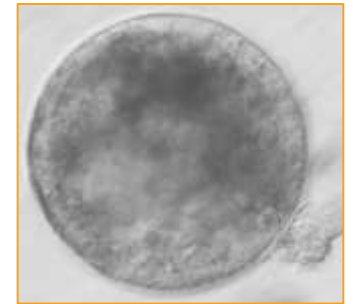
Immature



Mature



ICSI



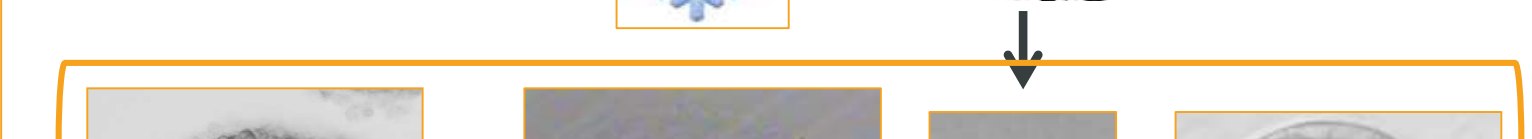
Embryo



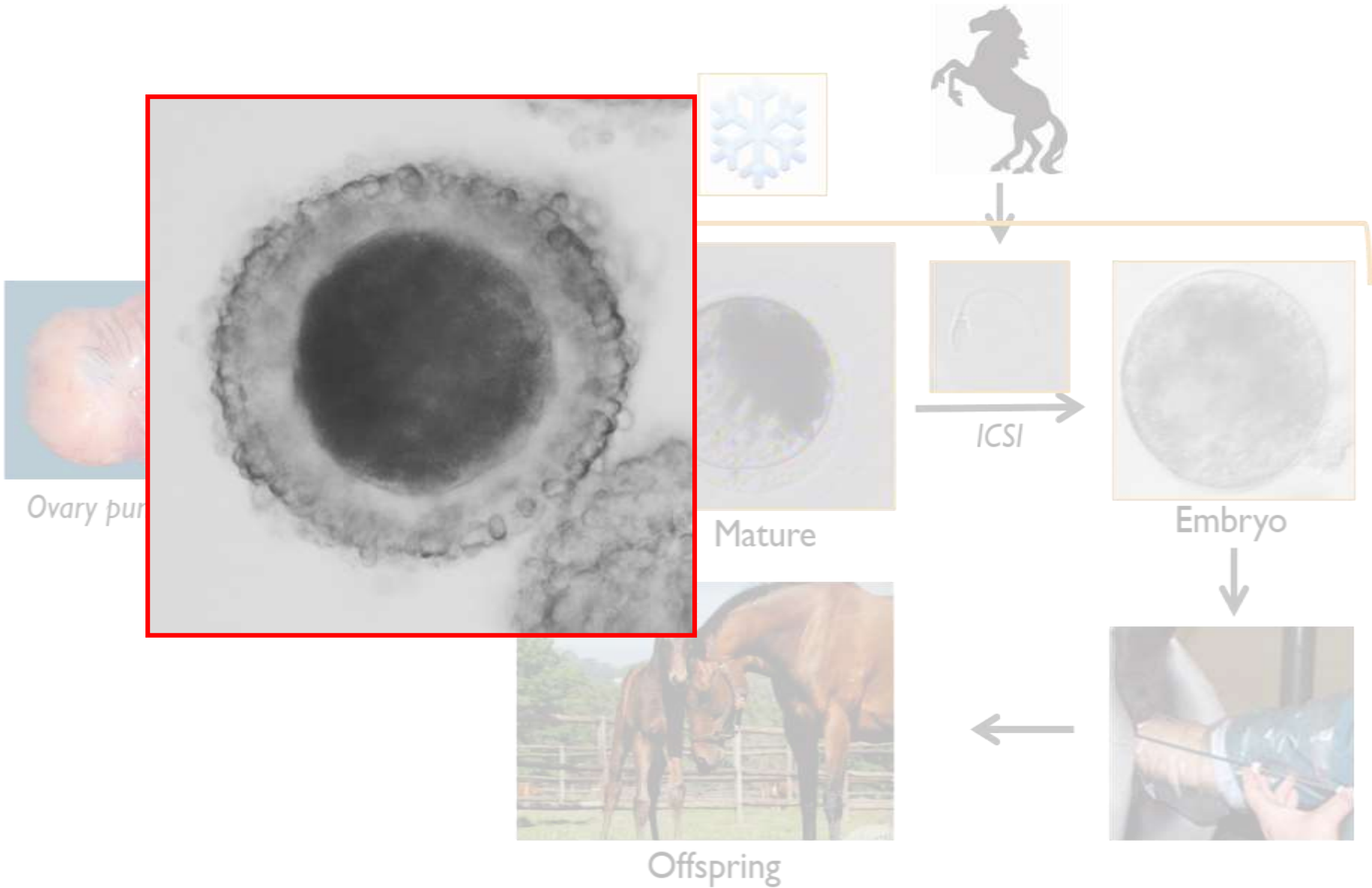
Embryo transfer



Offspring



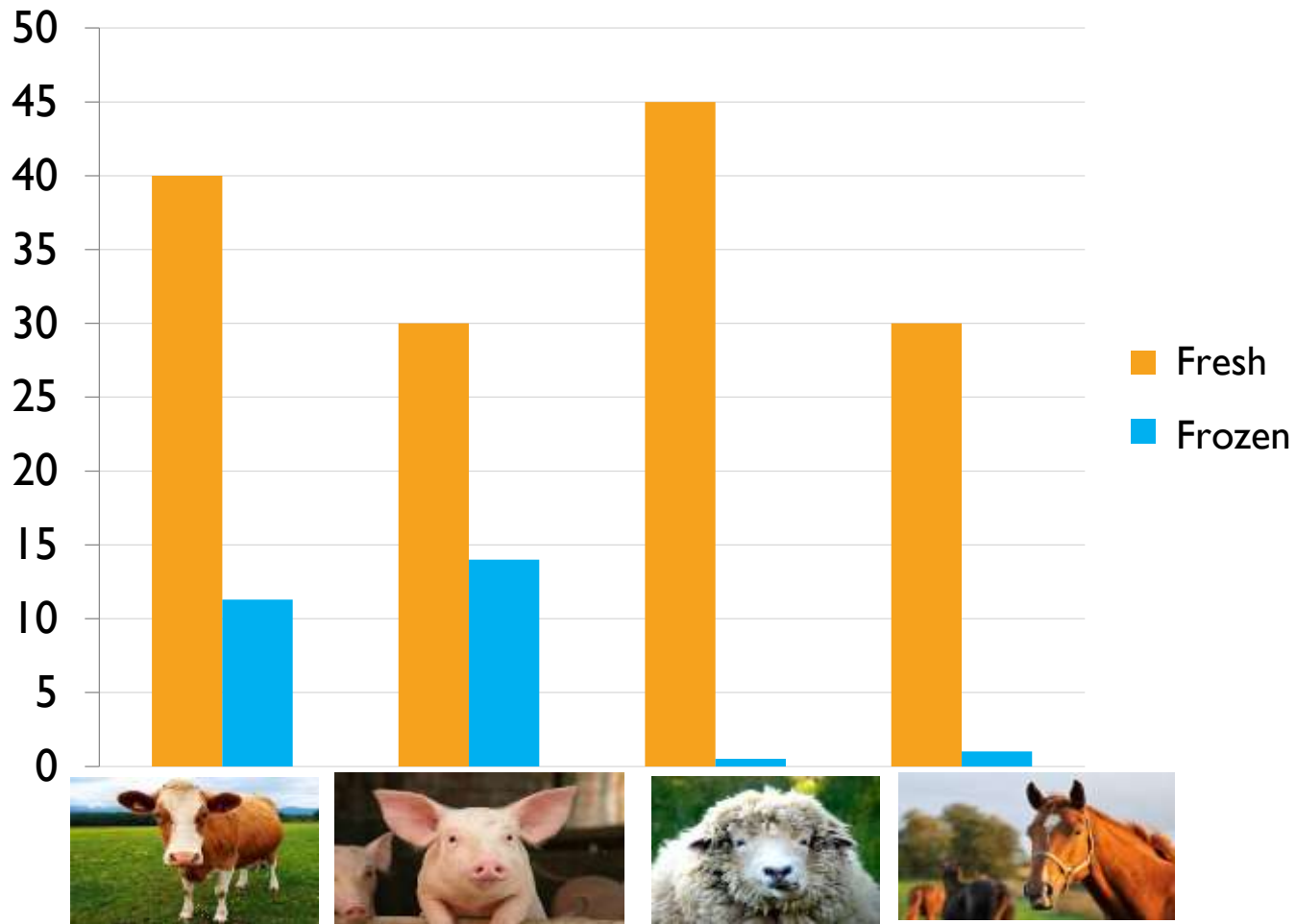
Cryopreservation in the horse



Cryopreservation of immature oocytes

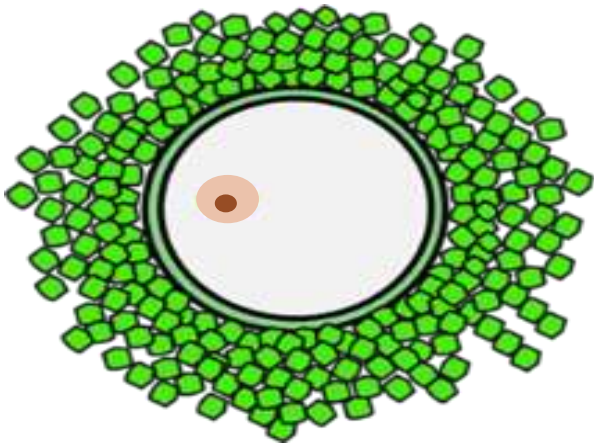


Embryo development after freezing of immature oocytes

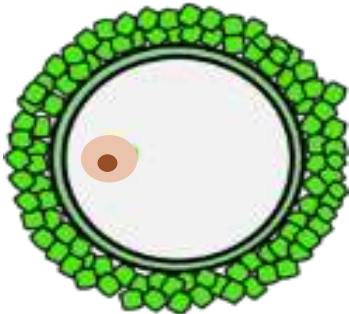


Aim

Influence of cumulus cells



COCs

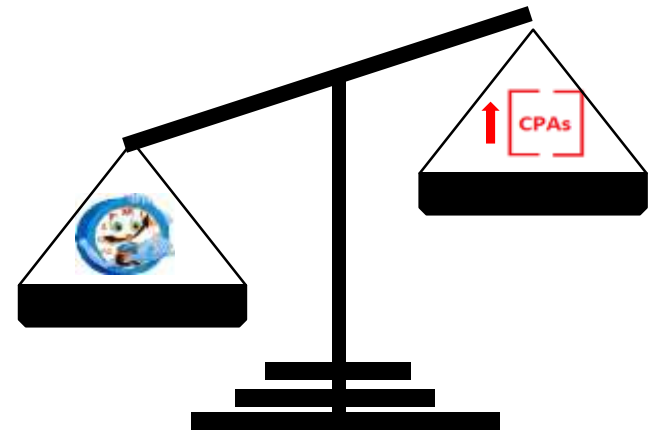
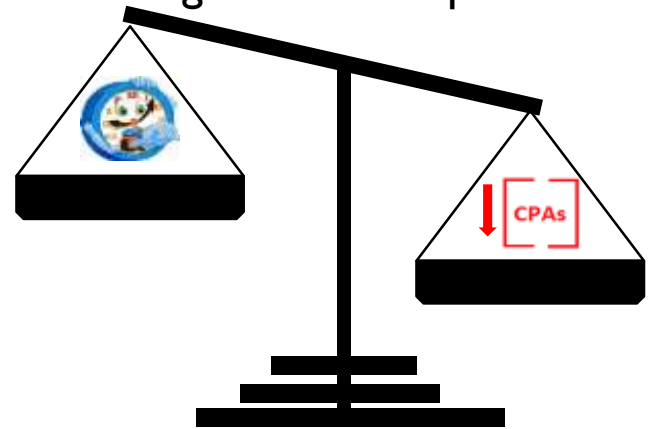


CRs



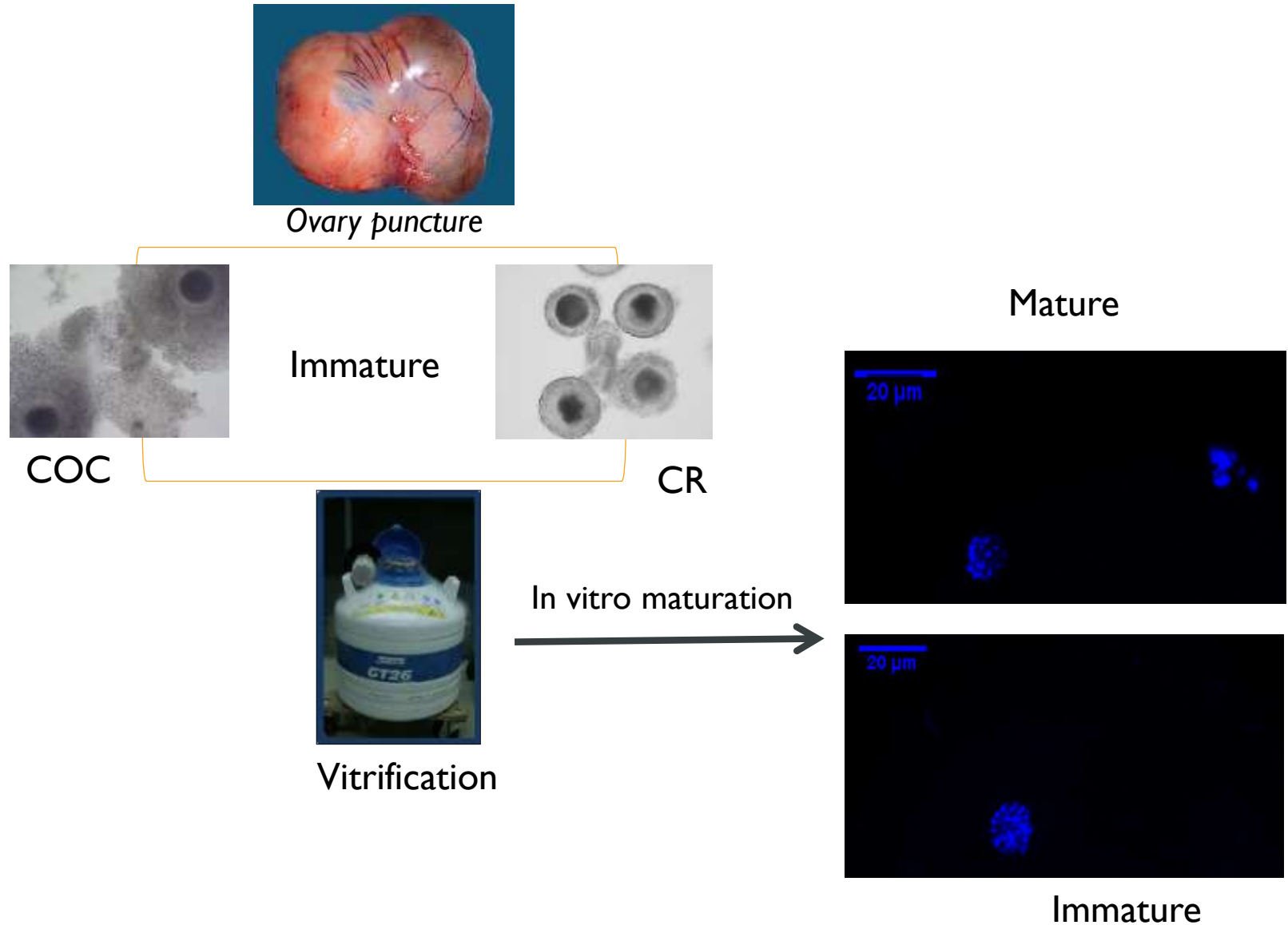
Influence of vitrification protocol

Long vitrification protocol



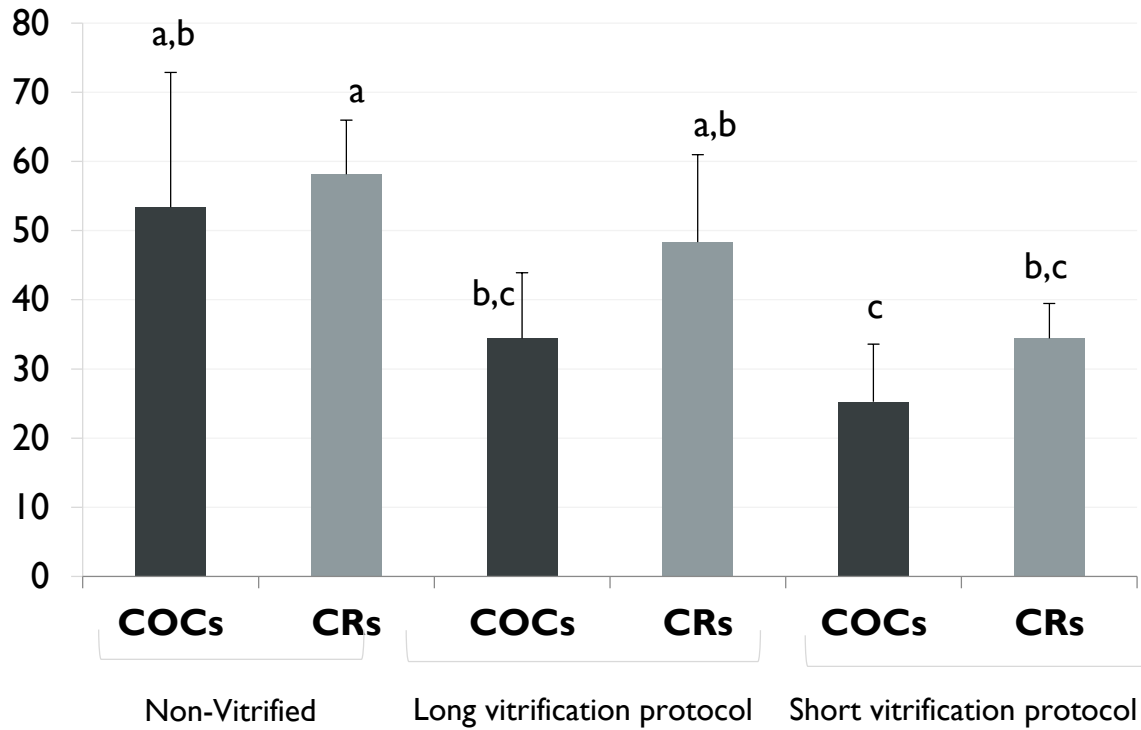
Short vitrification protocol

Experiment I Cumulus cells

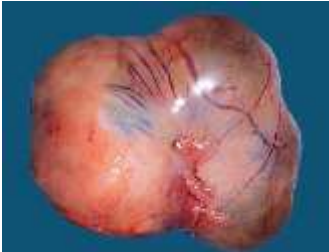


Experiment I Cumulus cells

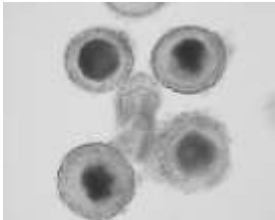
Maturation rate



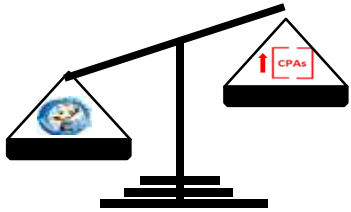
Experiment 2 Effect of vitrification protocol on developmental competence



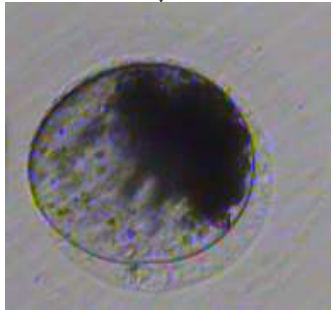
Ovary puncture



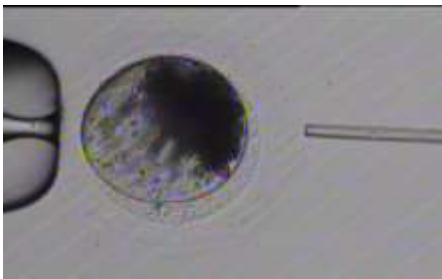
Immature



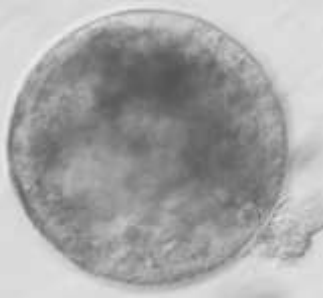
Vitrification



Mature



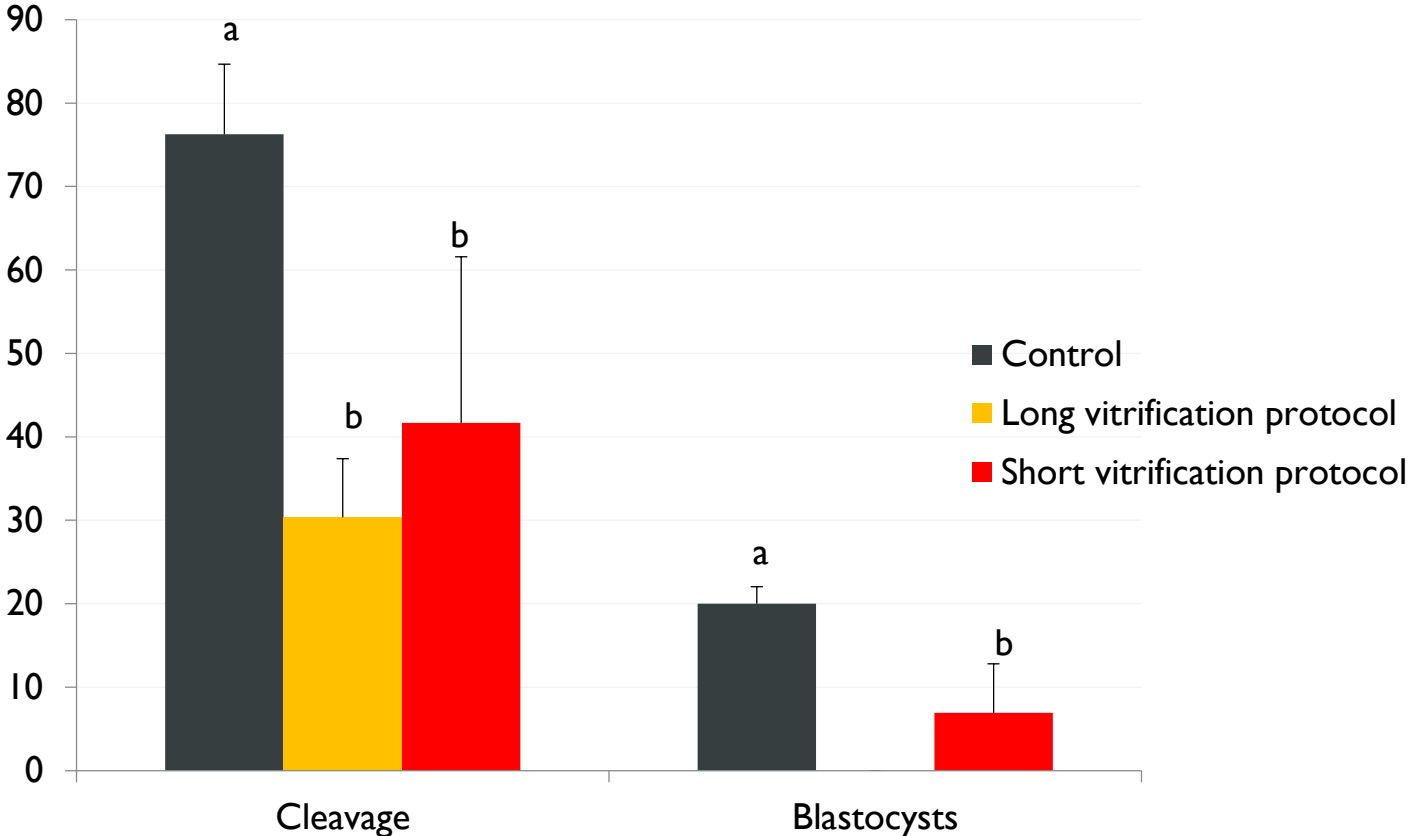
ICSI



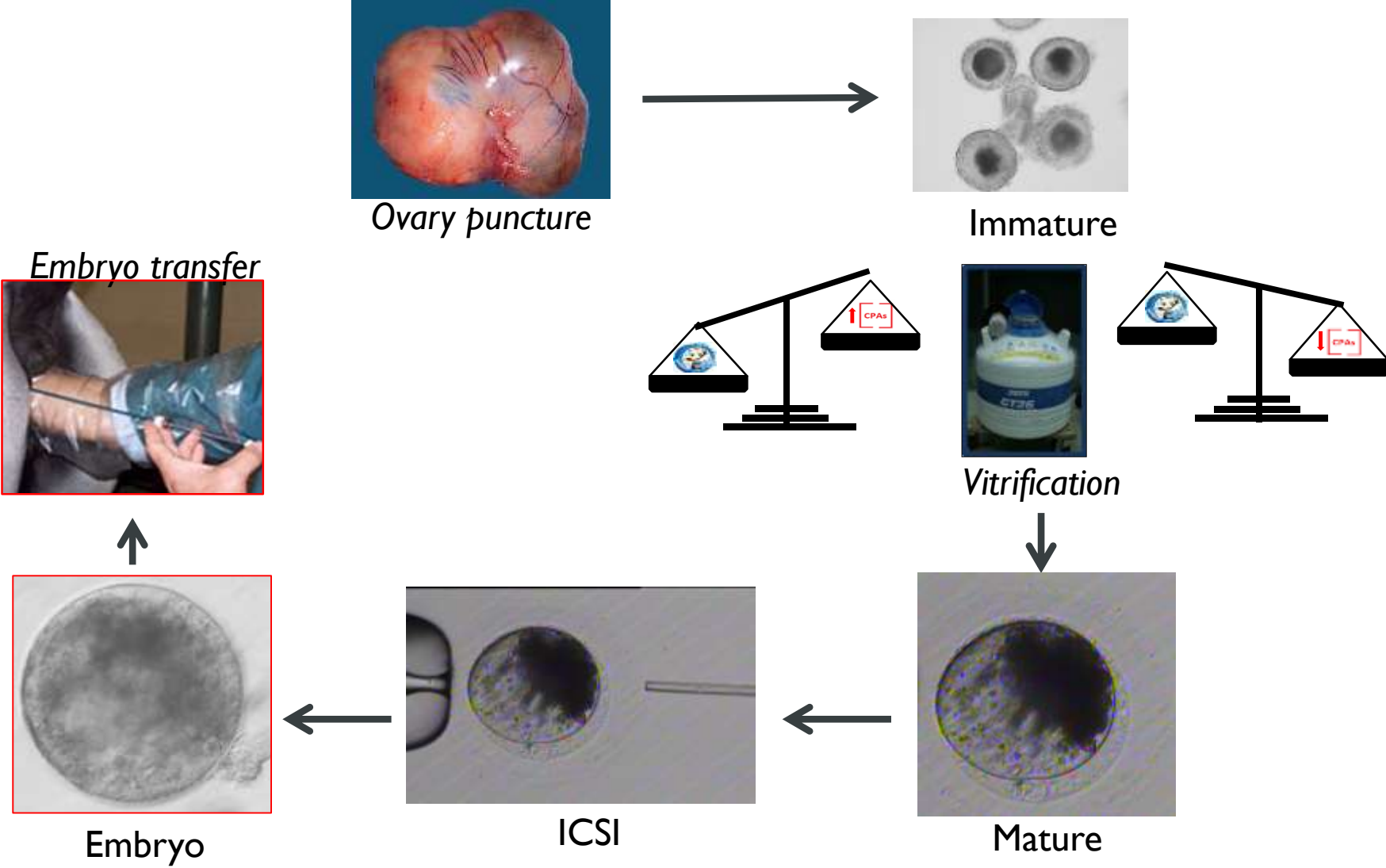
Embryo

Experiment 2 Effect of vitrification protocol on developmental competence

Blastocyst development



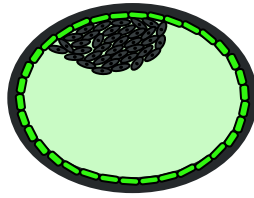
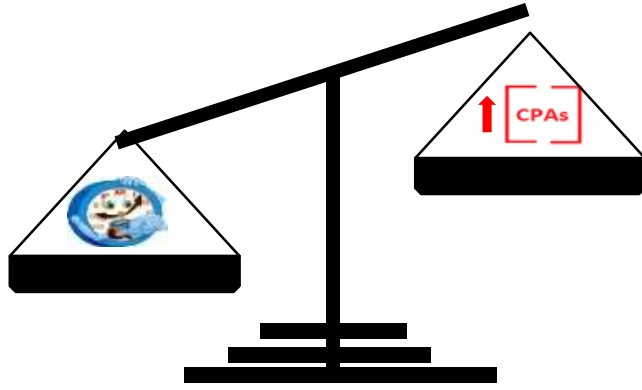
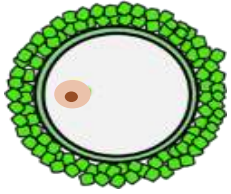
Experiment 2 Effect of vitrification protocol on developmental competence







Experiment 2 Effect of vitrification protocol on developmental competence



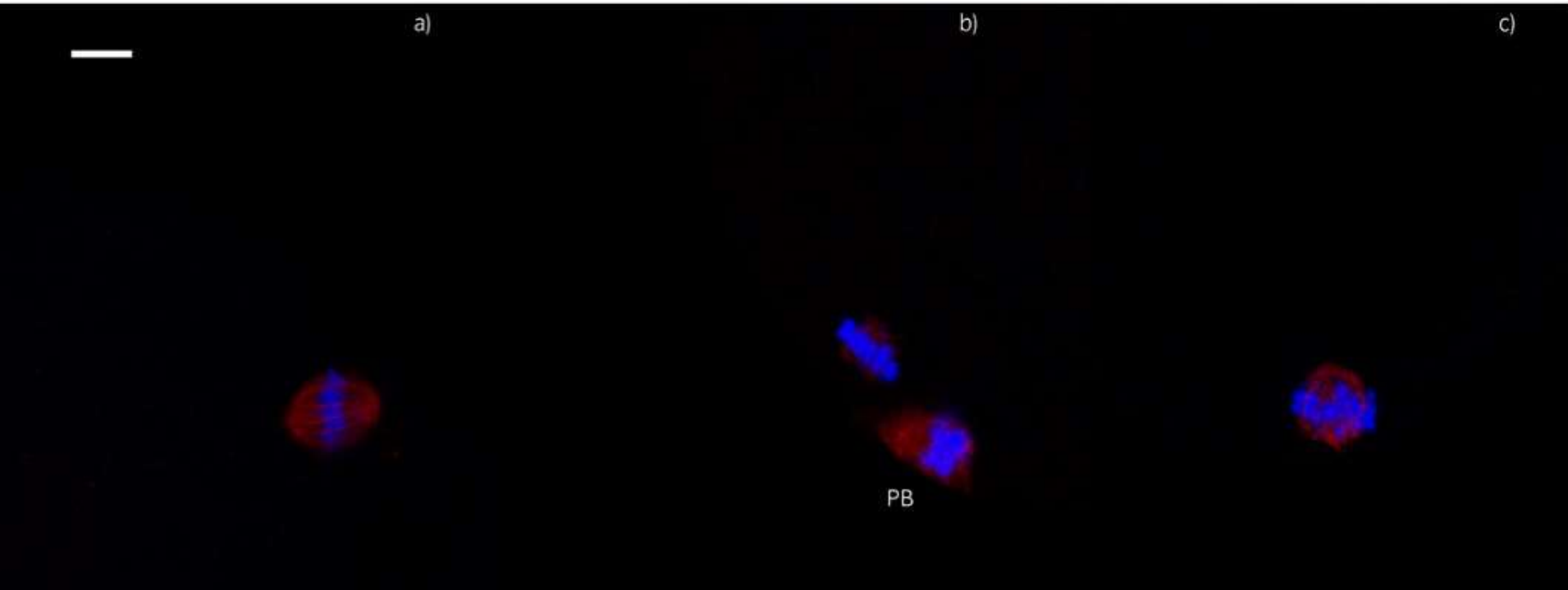
VICSI, May 12, 2017



Efficiency

				
Fresh	146	80 (55%)	16 (20%)	10 (60%)
Vitrification	179	72 (40%)	5 (6,9%)	1 (20%)

Oocyte damage



THANK YOU



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**An improved vitrification protocol for equine immature oocytes,
resulting in a first live foal**

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