EFFICIENCY OF OOCYTE FOLLICULAR ASPIRATION (OPU) TO OBTAIN EMBRYOS BY INTRACITOPLASMATIC SPERM INJECTION (ICSI) IN THE MARE AND COMPARISON WITH DONKEY

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INTRODUCTION *In vitro* embryo production via OPU and ICSI is the only in-vitro technique used because *in vitro* fecundation continues to be still not possible, for this reason OPU-ICSI procedures can lead on comparable or even better results than conventional embryo transfer.

Even it's popularity on mares there are no results present for jennies yet.

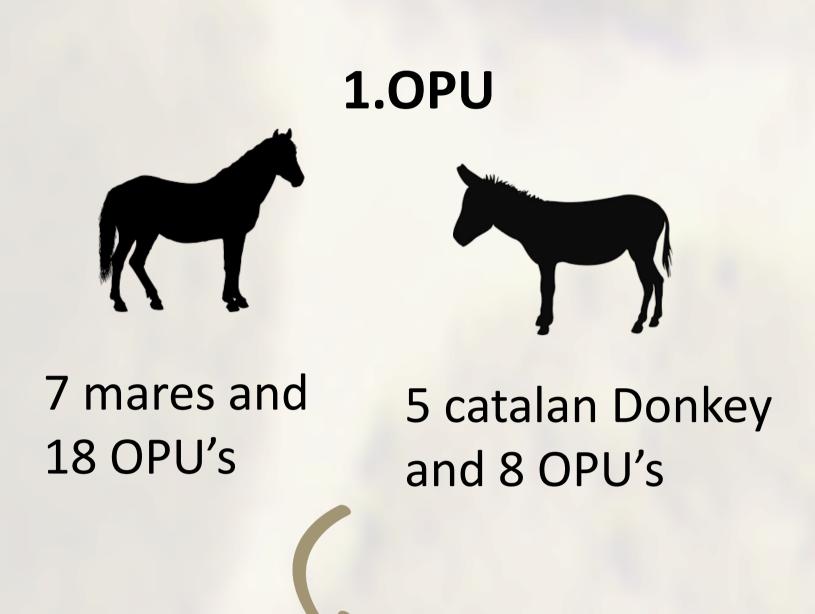
OBJECTIVES The aim of this study is to evaluate the efficiency of OPU- ICSI first procedures in horses performed at

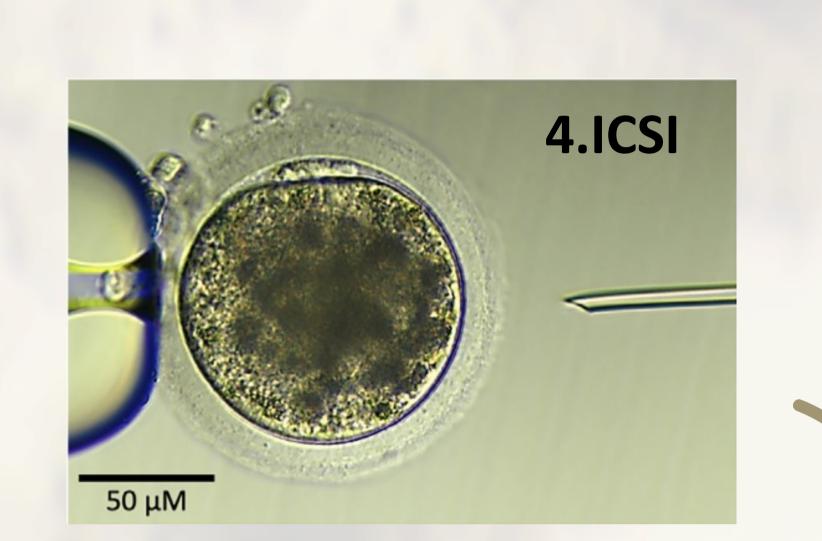
"Servei de reproducció equina de la Universitat Autònoma de Barcelona" and to compare it with the results obtained

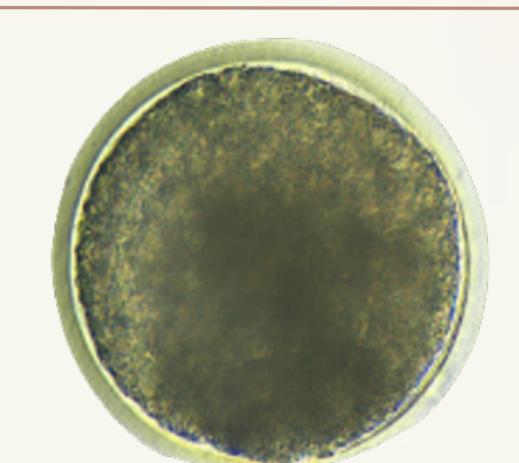
in donkeys as a way of improving the conservetion of the Catalan Donkey breed.

Immature oocyte

MATERIALS AND METHODS



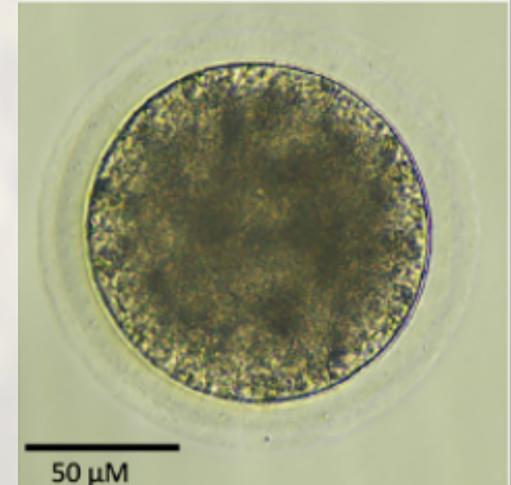


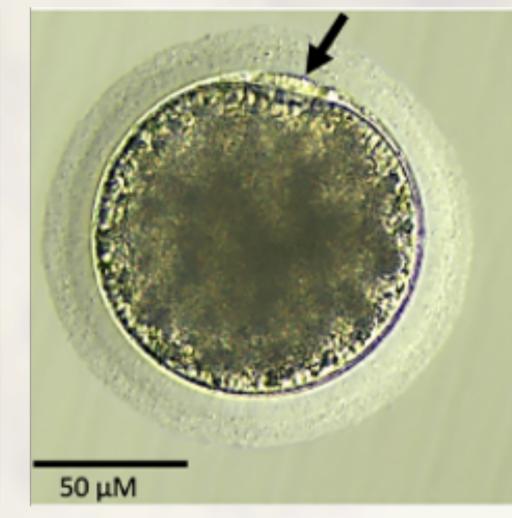


6. Assesing blastocist formation and vitrification when needed

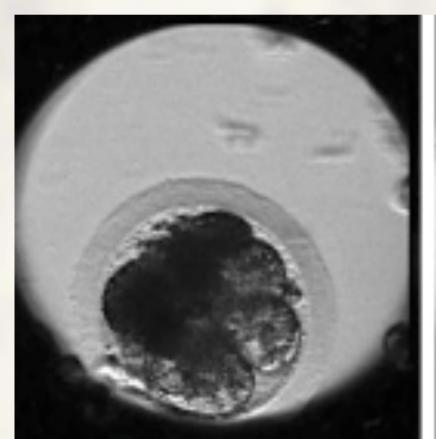


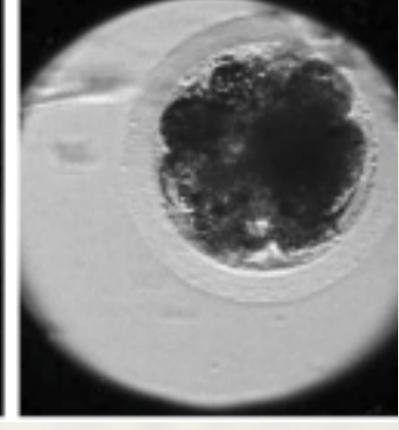






3.Oocyte maturation with preovulatory follicualr fluid (PFF)





5. Embryo culture for development (some controled by time-lapse imaging)

RESULTS

1.COMPARISON BETWEEN MARES AND JENNIES RESULTS IN OVUM PICK UP AND ICSI RESULTS

Group	No. Follicles	No. Oocytes	Oocyte recuperation	Maturation rate	Cleavage rate(%)	No. Blastocyst	Blastocyst/
	aspirated	obtained	efficiency (%)	(%)		obtained	injected oocyte (%)
	287	197	64.08 ± 30.06	68.51 ± 22.92	78.25 ±16.94	32	27.80 ± 16.87*
	65	45	73.13 ± 15.66	65.31 ± 22.40	62.26 <u>±</u> 33.14	1	2.50±7.07*

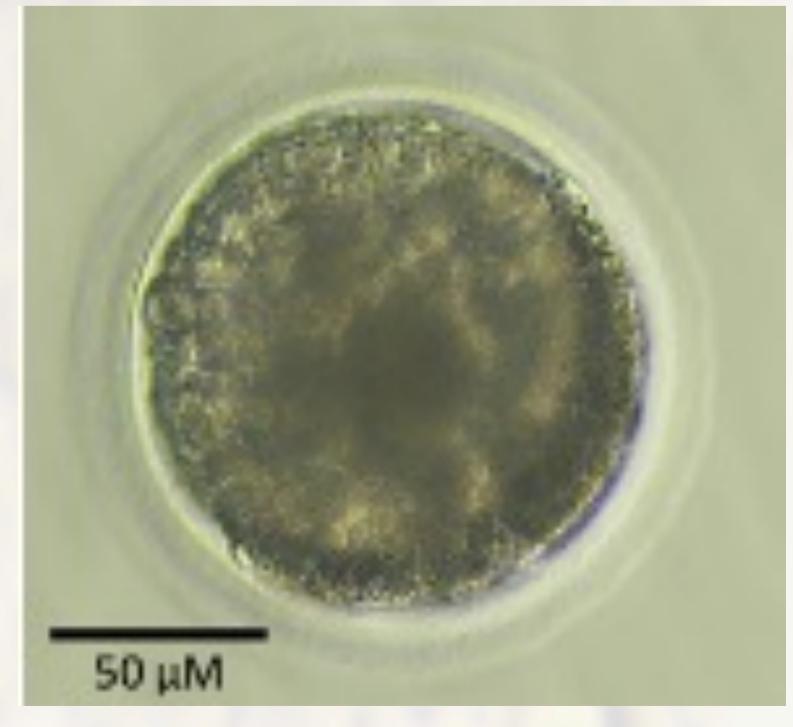
The subscript (*) means significant differences (\geq 0.05) between results in mares and jennies.

Data are shown as mean ± SD No: number.

2.INTERVALS OF INDIVIDUAL RESULTS

	Z.INTERVA	ALS OF INDIV	IDUAL RESULI	5		
No. Follcile asiprate	No. Oocytes	No. Blastocyst	Oocyte recuperation (%)	Maturation (%)	Blastocyst/ injected oocyte (%)	
5-38	0-29	0-5	0-100	27.27-100	10.53-50	
3-14	3-9	0-1	50-100	50-100	0-33.33	





The only donkey blastocyst obtained before

CONCLUSIONS

The overall results in this study are comparable to those reported elsewhere and demonstrate that OPU can be done in donkeys as performed in mares but ICSI in jennies is still not as efficient as in horses. More research is needed in order to improve this results, taking specially emphasis on ICSI in donkeys. It is the first report of a donkey blastocyst obtained by ICSI, which was only accomplished when oocytes were maturated with PFF.