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## Monitor chicken PGC integrity during in vitro amplification of cells and post-cryopreservation

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# Monitor chicken PGC integrity during in vitro amplification of cells and post-cryopreservation



- Transcriptome : RNAseq
- Epigenome : RRBS
- Germ line transmission

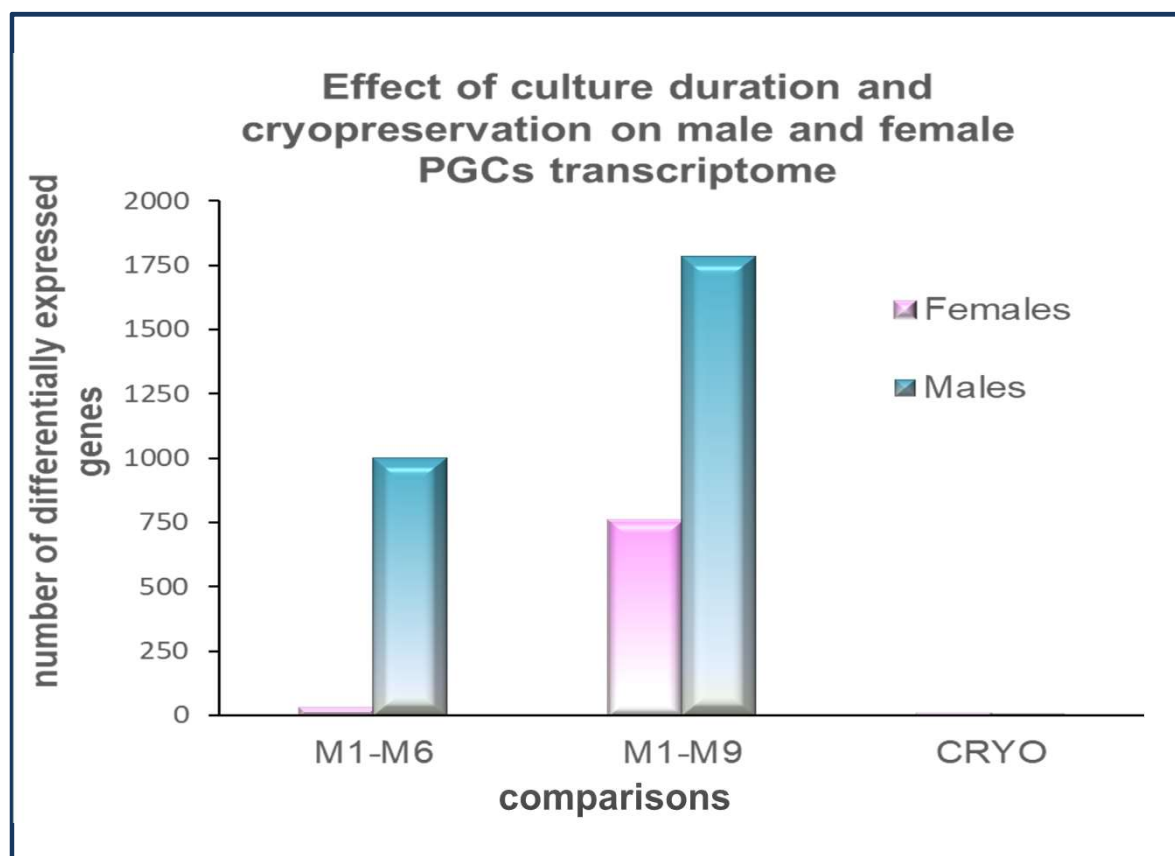
Madrid

February 4-6, 2020



# RESULTS

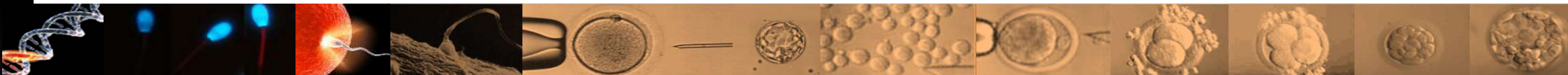
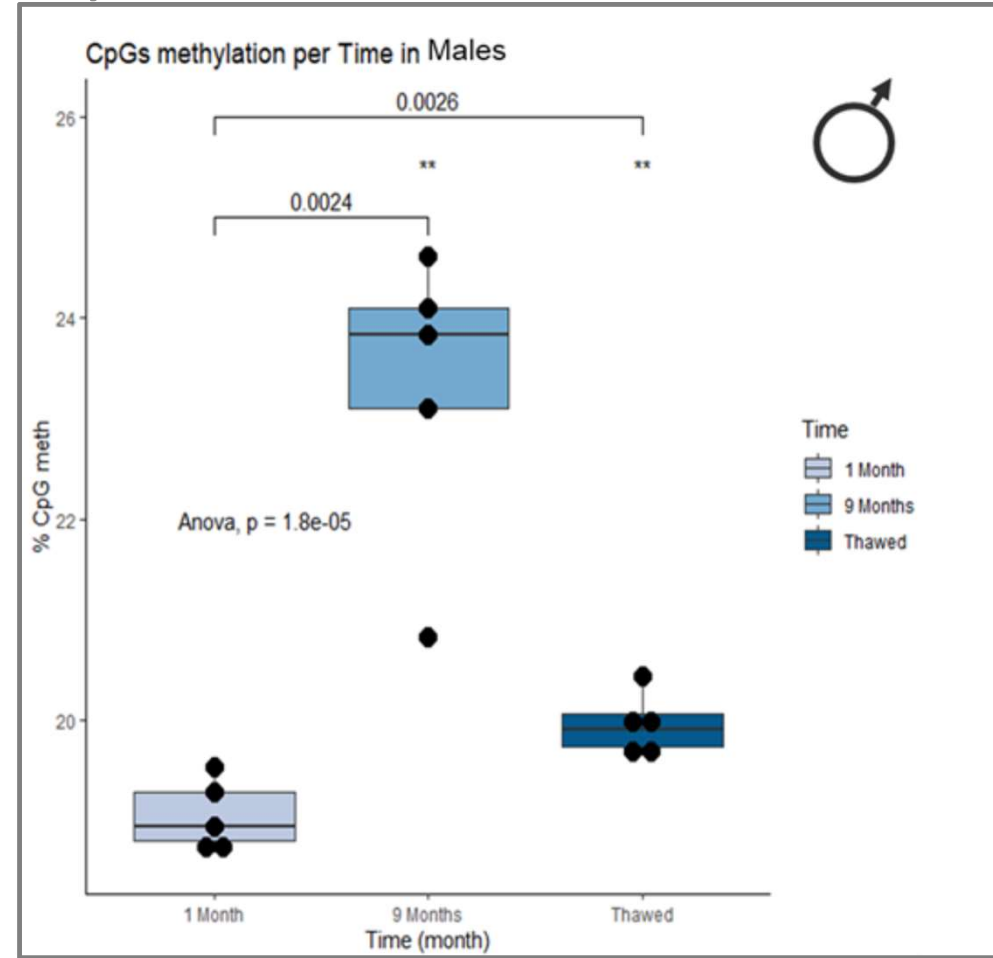
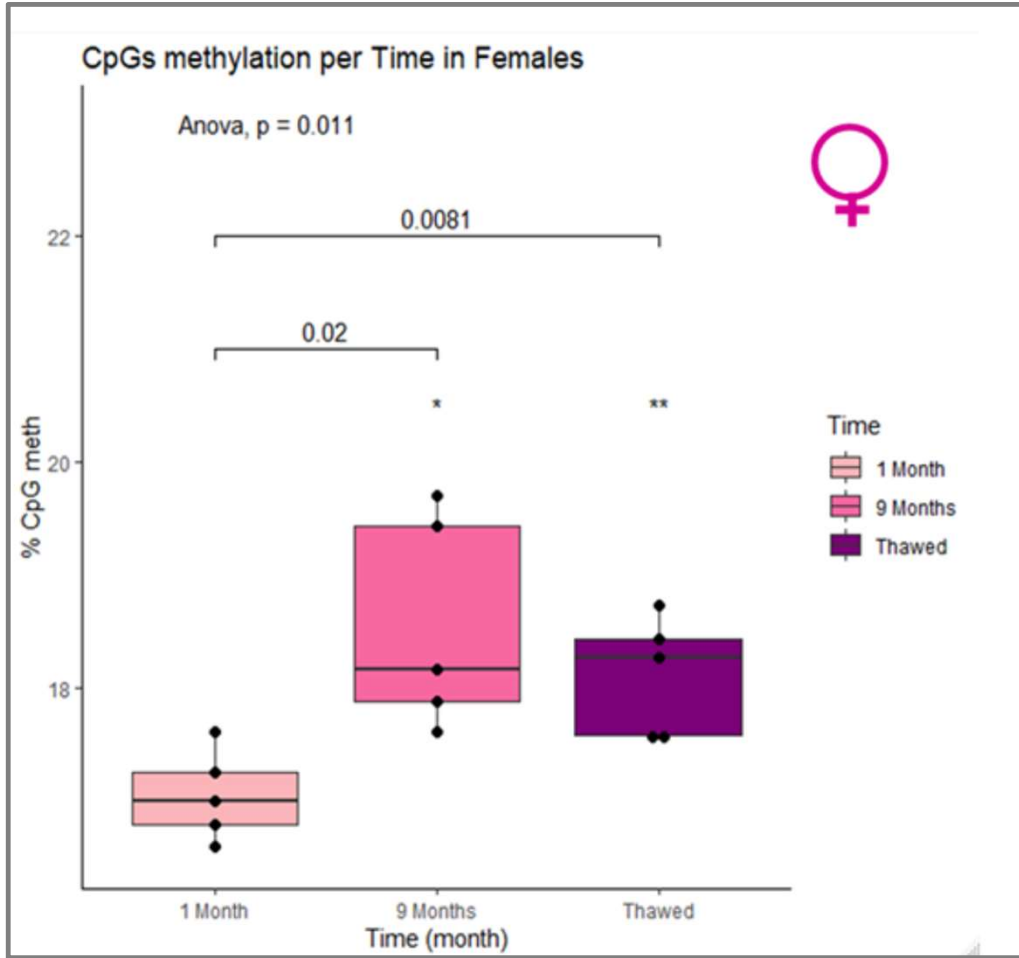
Effect of culture duration and cryopreservation on gene expression:  
RNAseq study



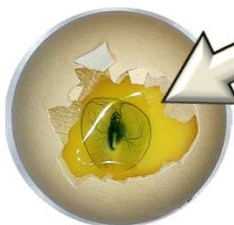
M1: 1 month in culture  
M6: 6 months in culture  
M9: 9 months in culture



# Effect of culture duration and cryopreservation on DNA methylation: RRBS study



# Germ line transmission



chimera cock number	culture name	monthhs in culture	number of black chicks	%black chicks/hatched	germline transmission rate
2587	K	1	6	21.4	42.8
2592	K	1	2	2.4	4.8
2589	K	1	2	1.9	3.8
2584	K	1	1	1.9	3
2626	K	9	0	0	0
2623	K	9	0	0	0
chimera hen number	culture name	monthhs in culture	number of black chicks	%black chicks/hatched	germline transmission rate
2599	R	9	1	1.9	3.8
2601	R	9	2	3.4	6.8
2612	R	9	10	30.3	60.6

First French progeny from *in vitro* derived PGCs

