



Supplementary Figure S3 Transcriptional changes associated with *in vitro* luteinization. Transcriptional changes from murine follicles before (-hCG) and after hCG treatment (1 d, 3 d and 5 d post-hCG), $n = 2-3$ cultures per time point. **(A)** Transcripts for the steroidogenic enzymes steroidogenic acute regulatory protein (*Star*) and cholesterol side-chain cleavage cytochrome P450 (*Cyp11a1*) were significantly induced post-hCG. Additionally, 20α -hydroxysteroid dehydrogenase (*20Hsd*) was up-regulated, transcribing the enzyme predominately responsible for progesterone catabolism in the rodent. The enzyme 3β -hydroxysteroid dehydrogenase (*Hsd3b1*) was significantly down-regulated 1 day post-hCG, but not significantly different on days 3–5 compared with follicles before hCG. The enzymes responsible for androgen and estrogen synthesis, 17α -hydroxylase (*Cyp17a1*) and aromatase (*Cyp19a1*), respectively, were significantly down-regulated post-hCG. **(B)** Follicle-stimulating hormone receptor (*Fshr*) and luteinizing hormone/choriogonadotrophin receptor (*Lhcgr*) were down-regulation 3 d post-hCG. Data are expressed as mean \pm SEM relative to transcript abundance before hCG (-hCG); * $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$ according to one-way ANOVA followed by the Bonferroni's Multiple Comparison Test.