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ACCEPTED MANUSCRIPT

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Abstract

Endometrial cell co-culture (ECC) with single embryo may reflect endometrium responses in vivo. Bovine Day-6 in vitro-produced morulae were cultured until Day-8 in modified synthetic oviductal fluid (mSOF), or on the epithelial side of ECC. Expression of epithelial- and stromal-cell transcripts was analyzed by RT-PCR in ECC with one male (ME) or female embryo (FE). Concentrations of ARTEMIN (ARTN) and total protein were determined in epithelial cell-conditioned medium. ECCs yielded embryos with more cells in the inner cell mass than embryos cultured in mSOF. Embryos altered transcript expression only in epithelial cells, not in stromal ones. Thus, ME induced larger reductions than FE and controls (i.e., no embryos cultured) in hexose transporter solute carrier family 2 member 1 (*SLC2A1*) and member 5

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