P-28 Expression of Ids and OUT mRNA in the Preimplantation Mouse Embryos and Uterus

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The helix-loop-helix (HLH) protein class of transcription factors are important regulators of cellular proliferation and differentiation in a number of cell types. The Id proteins are a family of related mammalian HLH protein, which are hypothesized to act negative regulator of DNA-binding bHLH proteins. We investigated into existence of Ids and OUT mRNA in the preimplantation mouse oocytes, embryos and uterus, uterus about estrus cycle.

Id 1, 2 & OUT just existed in the blastocyst stage embryo, and Id 4 not existed in eggs. Id 3 expressed in the GV stage oocyte, after 4-cell stage embryos. Expression of Ids and OUT mRNA in the reproductive cycles uterus analyzed that Id 1 entirely expressed in the reproductive cycle uterus, and Id 3 & OUT expressed in the other cycles uterus except the estrus cycle, and Id 4 slightly expressed in the others cycle except the diestrus cycle, but Id 2 only expressed in the metestrus cycle. Compared to the mouse implantation site and inter-implantation site, Id 1, 3 dramatic expressed, these genes increased each 1.79 fold, 1.75 fold in the implantation site. Id 2 was variable expressed in the samples. These results suggest that Id and OUT may act functional regulator in the preimplantation mouse embryos and uterus and Ids and OUT may influence by sex hormone.

P-29 Bovine Eggs Fertilized using Male Haploid Somatic Cell Derived from Sequential Nuclear Transfer without Sperm

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Objective: In this study, we evaluated whether bovine eggs reconstructed using male haploid somatic cell derived from sequential nuclear transfer without sperm can be normally developed *in vitro*.

Materials and Methods: Bovine GV oocytes were recovered from slaughtered bovine ovary and matured in TCM-199 supplemented with 10% FBS. Twenty-two hours after IVM, recipient oocytes were stained using 5 μg/ml Hoechst and their 1st polar body (PB) and MII plate were removed by enucleation micropipette under UV filter. Then, G0/G1 stage bovine male ear skin cells were introduced into enucleated recipient oocytes. Reconstructed eggs were fused to enucleated oocytes by electric pulse and then chemically activated. Eighteen hours after activation, each nucleus of the constituted eggs containing 2 sets of chromosomes from somatic cells was again direct injected into normal MII oocytes. Reconstructed eggs