

wells of plates and were frozen at -80C and next the individual clones were sequenced. So we got 341 sequencing data which included 75 known genes, 181 homologous genes, 73 novel genes and 12 unclassified genes. And next following the identification of the full length sequences, a homology search will be performed to determine how closely related the whole sequences is to the already cloned StAR gene. and we will try to determine which cell types express the gene.

O-4 The Regulation of LIF Gene Expression by Interleukin-1 in the Mouse Peri-implantation Embryos and Uterine Endometrial Cells

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Cytokines have a critical role in embryo implantation. Leukemia inhibitory factor (LIF) is one of these cytokines and it has been shown to be a pleiotropic molecule involved in different activities in various tissues and cell types. LIF mRNA expression is regulated by interleukin-1 (IL-1) in human synovial fibroblasts, lung fibroblasts, and decidual cells. In this study, the effects of IL-1 on LIF transcription were examined in mouse peri-implantation embryos and endometrial cells. The endometrial cells were prepared at 24, 48, 72, 96 and 120 hour post-hCG, and the culture was performed with Ham's F-10 containing IL-1 β (500 pg/ml) or IL-1ra (60 ng/ml). The embryos were cultured from 2-cell to blastocyst in KSOM containing IL-1 β or IL-1ra. LIF mRNA was detected in morula and blastocyst, and in the endometrial cells of day 1 and 4 of pregnancy *in vivo* and *in vitro* cultured with medium alone. LIF transcripts were first detected at 8-cell stage and the amount of LIF mRNA was shown a tendency to increase in blastocyst treated with IL-1 β . LIF mRNA was detected from day 1 to 5 of pregnancy, and the amount of LIF mRNA was abundant in day 4 of pregnancy than others, in the endometrial cells treated with IL-1 β . In contrast, LIF mRNA was reduced in blastocyst and the endometrial cells of day 4 of pregnancy in the case of treatment of IL-1ra. In addition, LIF mRNA was not detected in the endometrial cells of day 1 of pregnancy. These results suggest that LIF mRNA expression is controlled by IL-1 in the embryos and endometrial cells at the time of implantation.