

APPEARANCE OF IMPLANTATION-RELATED MAKERS IN PRE- IMPLANTATION MOUSE EMBRYOS

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Introduction: According to previous data Insulin- like Growth Factor 2 (IGF2), Macrophage migration Inhibitory Factor (MIF), Progesterone Induced Blocking Factor (PIBF) Tumor Necrosis Factor alpha (TNF α), Vascular Endothelial Growth Factor (VEGF), Plasminogen Activator Inhibitor 1 (PAI1), Placental Growth Factor (PLGF) and Leukaemia Inhibitory Factor (LIF) play major roles in preparing the endometrium for implantation. The purpose of our study was to examine the expression of these molecules in pre-implantation mouse embryos at different stages of development.

Methods: 8-12 weeks old CD1 females were caged with 3-6 months old CD1 males. Sighting the vaginal plug was considered day 0.5 of pregnancy. On day 1.5 the embryos were flushed from the Fallopian tube and cultured until the blastula stage. Samples were taken at different stages of development and reacted in a droplet with antibodies specific for the molecules listed in the “Introduction”.

Results: All of the indicated markers are present in pre- implantation stages. VEGF staining was highly positive in the inner cell mass of the blastocyst. IGF2 and PIBF were especially positive in the trophectoderm.

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