

# Laminin promotes in vitro outgrowth of mouse trophoblast from blastocysts cultured in hanging drop

Mancilla, Alejandra

Vargas, Victor

Izquierdo, Luis

Differentiation of the nonadherent trophectoderm cells of the mammalian embryo into attachment-competent trophoblast cells appears to be a necessary event for invasion of the uterine stroma. We have used a hanging drop culture system to investigate the involvement of contact with a solid surface and extracellular matrix proteins on mouse trophoblast differentiation. We report that laminin, but not fibronectin, promotes in vitro outgrowth of mouse trophoblast without attachment of the embryo to a solid surface, in a serum free culture medium. This result indicates that, in the presence of a trophoblast differentiation factor, the contact of the embryo with a solid surface is not necessary to obtain in vitro trophoblast differentiation.