

Effect of Li⁺ on preimplantation mouse embryos

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Two-cell mouse embryos were cultured in vitro for different periods in a medium in which NaCl was partially replaced by LiCl at concentrations ranging from 1 to 30 mM. The relative cell number diminished according to increasing LiCl concentrations but the onset of blastulation was not affected, thus resulting in blastulae with fewer cells than normal and with a reduced or absent inner cell mass. Results are discussed in terms of the possible mechanisms involved and are related with the vegetalization induced by Li⁺ on early embryos of echinoderms and amphibia.