



Figure 6. Derivation of ES and TS Cells from the Blastocyst

ES cells are derived from inner cell mass (ICM) cells and can be kept in culture without differentiating. They can be genetically manipulated while in culture. ES cells can be reintroduced into blastocysts and can then colonize all tissues in the embryo, including the germ line, but excluding the trophoblast cells of the placenta. TS cells can be established similarly into culture from the trophoctoderm cells of the blastocyst, and when reintroduced into blastocysts, contribute to placental cell types.