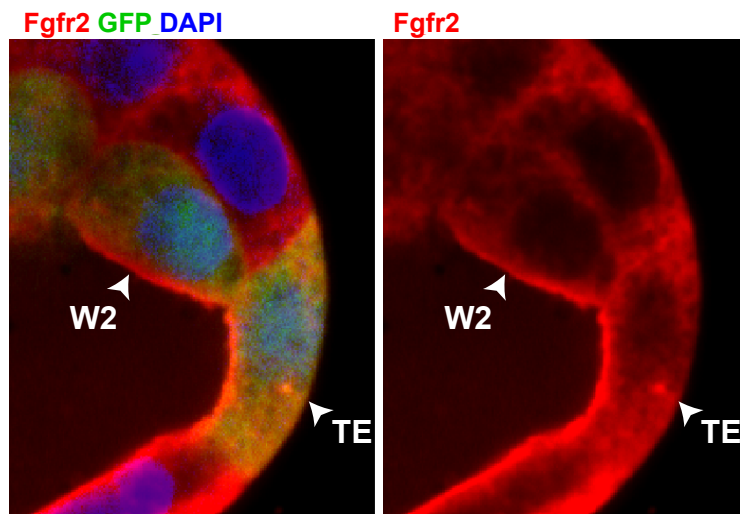
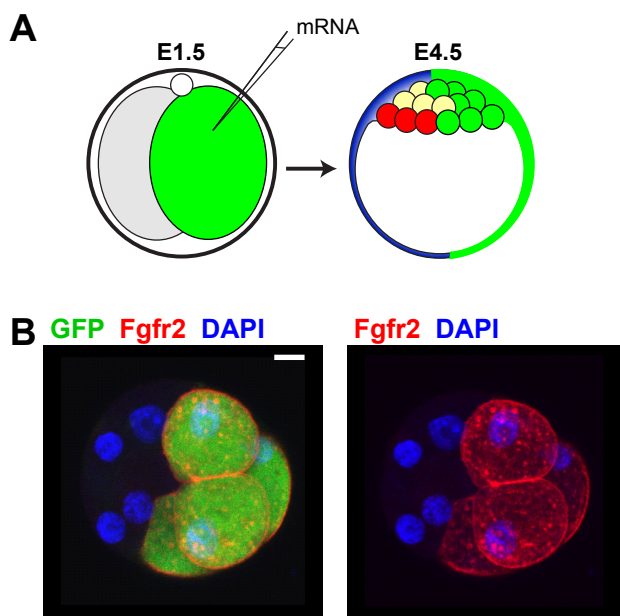


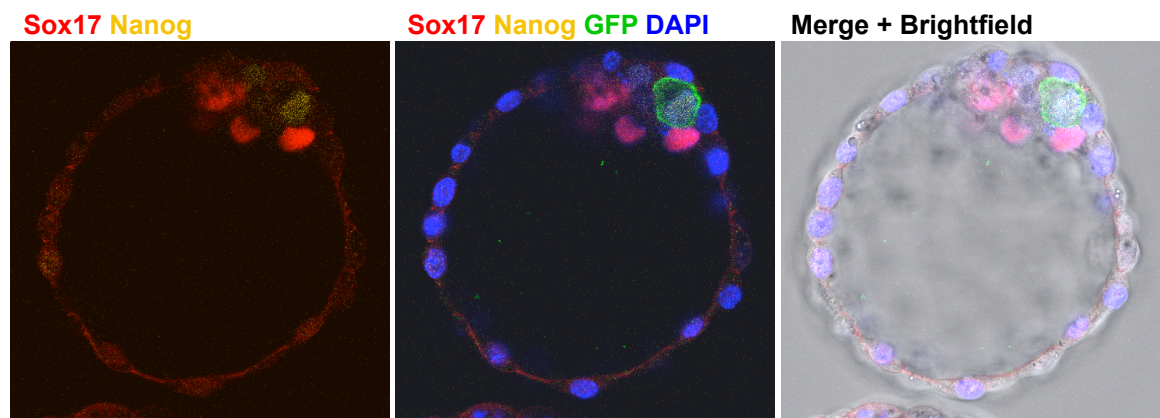
## Supplementary Figures



**Figure S1.** Expression of Fgfr2 in a wave 2 derived inside cell positioned at the surface of the ICM. Detail of the adjacent TE cell shows that Fgfr2 expression detected in the wave 2 inside cell is not associated with trophoblastic processes belonging to the adjacent TE cell.



**Figure S2.** (A) Overexpression in half of the embryo by injection of mRNA to one blastomere at the 2-cell stage. (B) Confirmation of Fgfr2 overexpression at the 8-cell stage. Injected cells are marked by GFP expression.



**Figure S3.** Example of a chimera made with an 8-cell blastomere placed on the inside of the embryo, fixed at E4.5 and immunostained for Sox17 (PE) and Nanog (EPI). GFP expression marks progeny of the donor cell.