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SUPPLEMENTARY MATERIAL

corresponding to:

Insulin-like growth factor 1 acts as an autocrine factor to improve early embryogenesis *in vitro*

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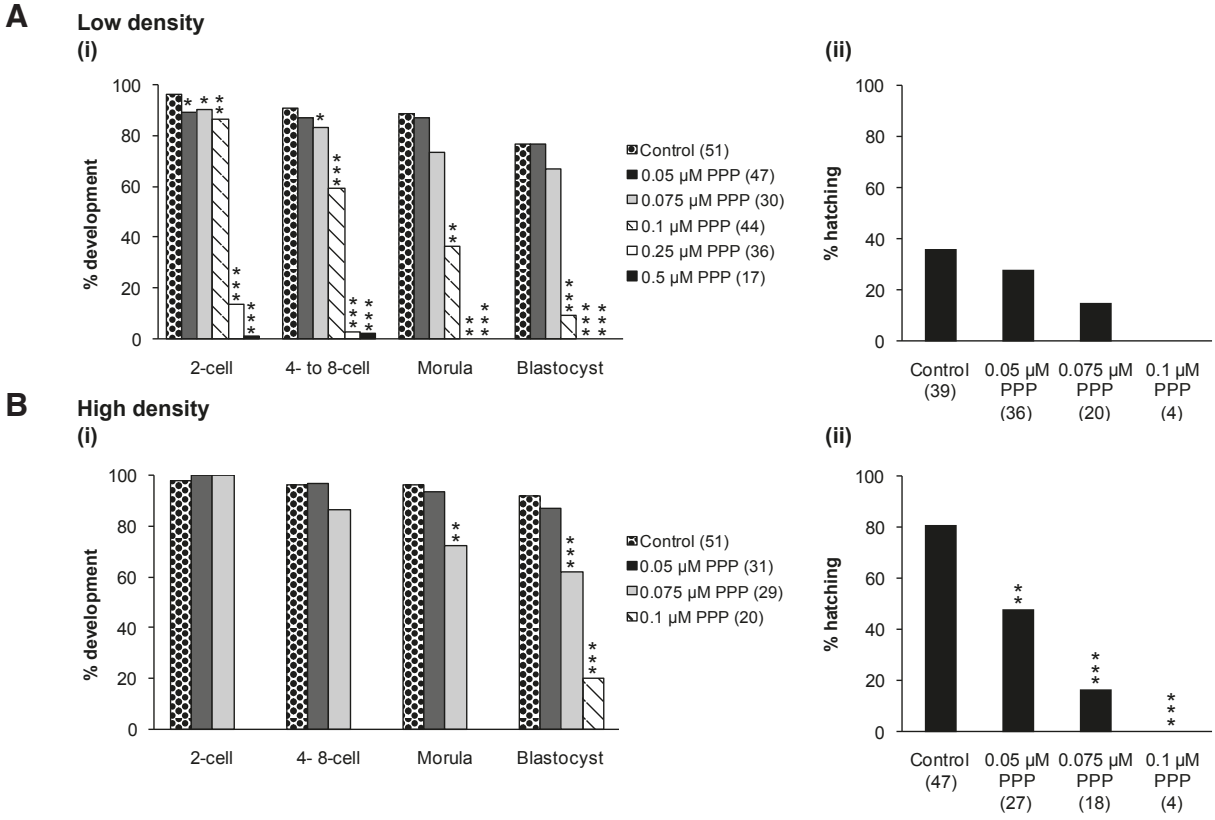
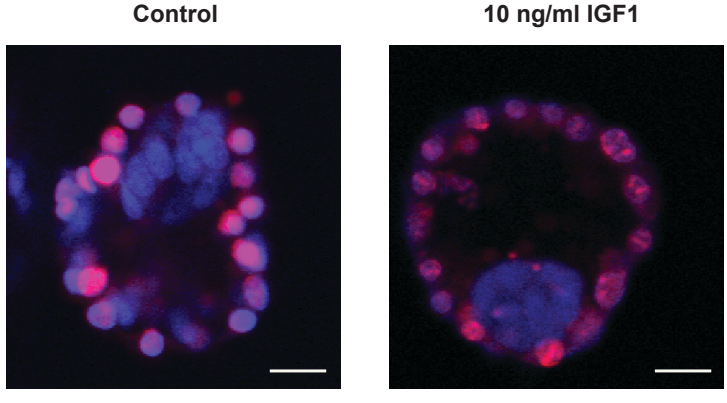


Supplementary Fig. S1. Picropodophyllin decreases embryo development and hatching in a dose-dependent manner. *Development of zygotes to the 2, 4-8, morula and blastocyst stage* **(i)** *and proportion of blastocysts hatching* **(ii)** *after culture in the absence or presence of 0.05-0.5 µM PPP* **(A)** *at low density (1 embryo/100 µl) or* **(B)** *in groups at high density (1 embryo/1 µl). The results are displayed as the percentage of embryos developed to each stage or hatching, pooled from at least 2 experiments except for 0.5 µM PPP which was pooled from 1 experiment as no embryos survived to the blastocyst stage when cultured in either 0.25 or 0.5 µM PPP (n values in parentheses). Chi-square analysis was used to compare the development and hatching rate of the control to the treatment groups. * indicates* $P<0.05$ *** indicates* $P<0.01$ **** indicates* $P<0.001$.



Supplementary Fig. S2. Differential staining of trophectoderm and inner cell mass. *Scale bars represent 20 µm.*

Supplementary video S1. Picropodophyllin disrupts spindle in and oocytes over six hours. *Hoechst was used to stain the chromosomes. Oocytes were treated with 0.5 µM PPP and imaged over 6 hours using the CellVoyager™ CV1000 Confocal Scanner System, 405 nm laser at 5 % laser power. A Z-stack was taken through the embryo, at 1.7 µm intervals, every 5 minutes.*