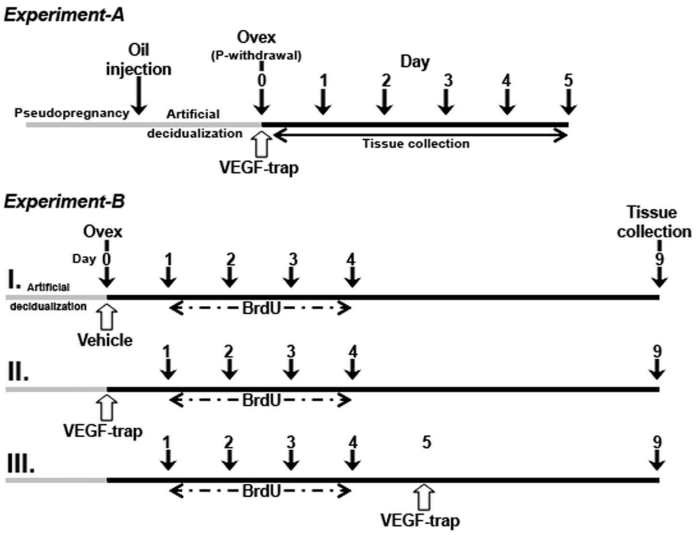
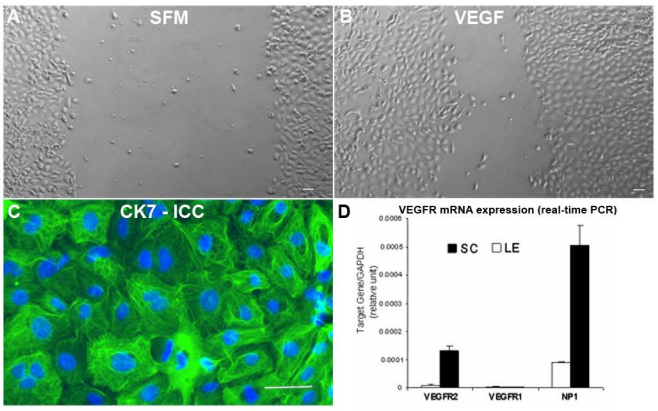
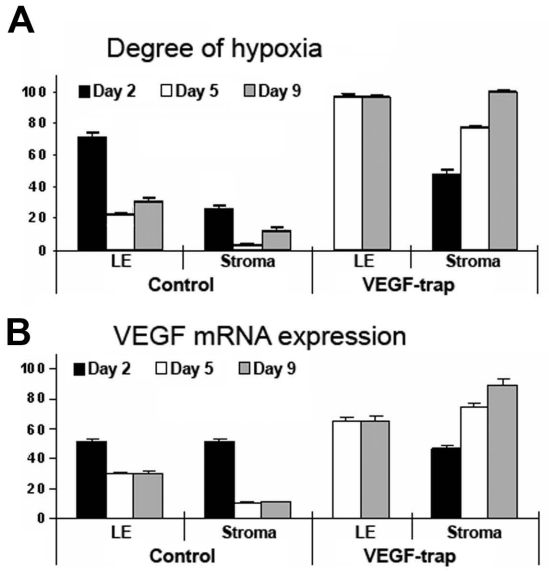


Supplementary Figure 1. Experimental design - mouse model of endometrial breakdown and regeneration. Experiment-A: 20 µl of sesame oil was injected into the uterine lumen on day 4 of pseudopregnancy to induce artificial decidualization. Bilateral ovariectomy (ovex) was performed 2 days later (P-withdrawal, Day 0). Uteri from different groups were collected between day 0 and 5 after vehicle or VEGF Trap treatment on day 0. Experiment-B (Groups I-III): artificial decidualization and P-withdrawal were performed in all mice identical to experiment A. Group I (control) was treated with the vehicle and group II with VEGF Trap on day 0, and group III with VEGF Trap on day 5. All groups were treated with BrdU from days 1 to 4 and uteri were collected on day 9.



Supplementary Figure 2. Coculture of mouse luminal epithelial (LE) and stromal cells: migration of LE cells in an in vitro scratch wound assay. LE cells migration was assessed in scratch wounds in different culture conditions. A-B: representative images taken at 12 hr after scratch wound (cocultured with stromal cells) in serum free medium (SFM) (A) and SFM plus VEGF (B). C: cytokeratin-7 (CK7) immunostaining showing purity of isolationed LE cells. D: measurement of VEGF receptors RNA expression by real-time PCR in isolated LE and stromal cells. Scale bars, 50 μm.



Supplementary Figure 3. Analysis of degree of hypoxia (A, hypoxyprobe intensity) and VEGF expression (B, silver grain count) in the luminal epithelium (LE) and stroma in the control and VEGF Trap treated animals on days 2, 5 and 9. Note the identical pattern of degree of hypoxia and VEGF expression in both the control and VEGF Trap treated animals at various time points.