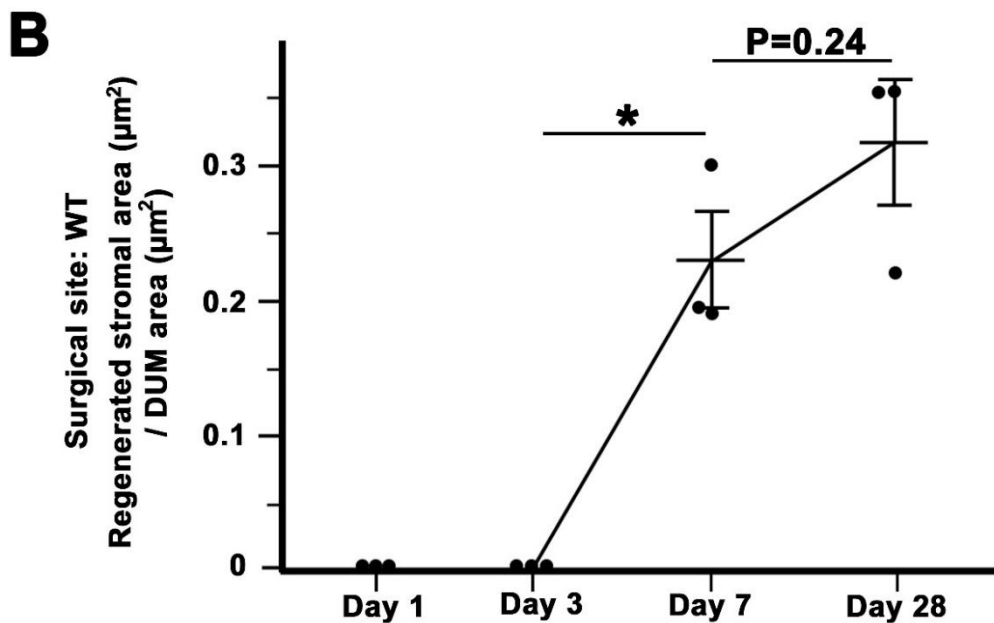
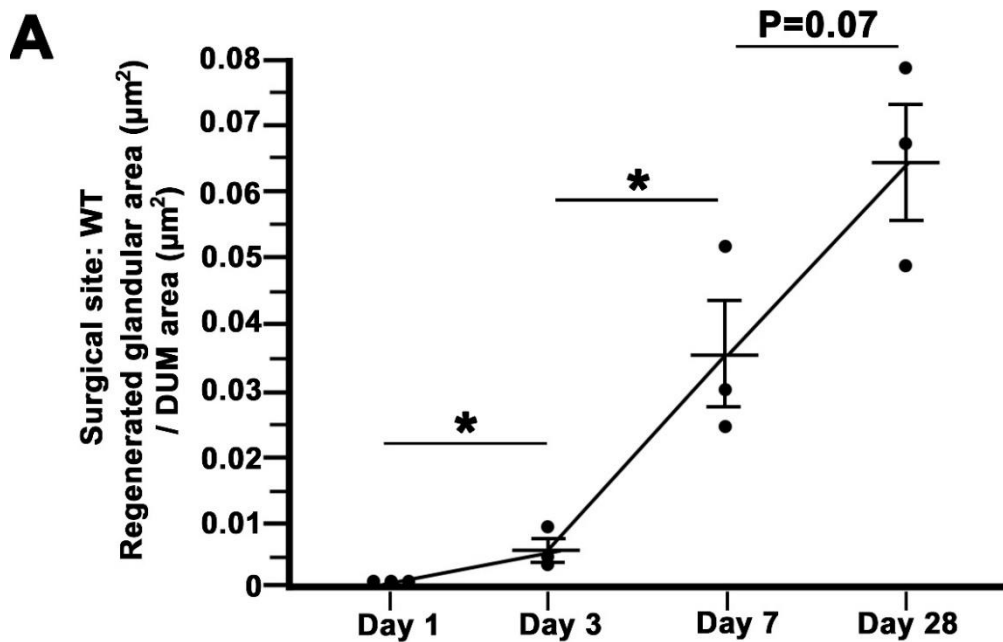


**Supplemental Figure 1. Gland formation is associated with migration and invagination of luminal epithelial cells in the mouse DMT model.** **A**, H&E staining of serial sections at the transplanted DUM site in the recipient mice on Day3. In the transplanted DUMs, initial superficial flat cells formed gland-like structure which connected with luminal epithelium, indicating migration and invagination of luminal epithelial cells. **B**, H&E staining of the transplanted DUM site on Day7. The normal-appearing mature glandular epithelium with taller cells was increased on Day 7. Blue arrowheads, gland-like structure; DUM, a decellularized uterine matrix; UT, a recipient uterus surrounding DUM; dotted line, a boundary between DUM and UT; scale bars, 200µm; Each image is a representative from at least 3 independent experiments.



**Supplemental Figure 2. Quantitative analyses of glandular and stromal formation in the mouse DMT model.** **A**, Occupancy of regenerated gland at the transplanted DUM sites on Days 1, 3, 7 and 28, defined as the glandular area ( $\mu\text{m}^2$ ) normalized by DUM area ( $\mu\text{m}^2$ ). The occupancy of gland significantly increased on Day 3. \*,  $P<0.05$ . **B**, Occupancy of regenerated stroma at the transplanted DUM sites on Days 1, 3, 7 and 28, defined as the stromal area ( $\mu\text{m}^2$ ) normalized by DUM area ( $\mu\text{m}^2$ ). The occupancy of stroma significantly increased on Day 7. \*,  $P<0.05$ .