## Supplementary information

**Title-** Enteric neuronal cell therapy reverses architectural changes in a novel diphtheria toxin-mediated model of colonic aganglionosis

**Short title**- Rescue of diphtheria toxin-mediated intestinal aganglionosis

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**Legends of supplementary figures**

**Supplementary Figure 1. Focal ENS ablation is maintained for at least 3 months following DT injection in the colon.** Representative images showing loss of Hu immunostaining in colon cross sections of Wnt1-iDTR mice 3 months following DT injection (a). Control colon shows positive Hu staining in the myenteric ganglia (b, arrows).

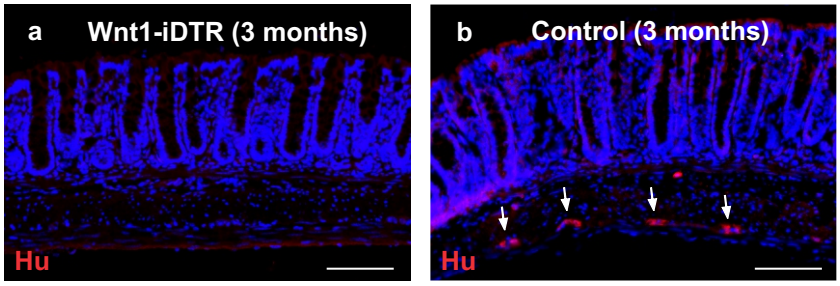
Scale bar 100 μm (a,b).

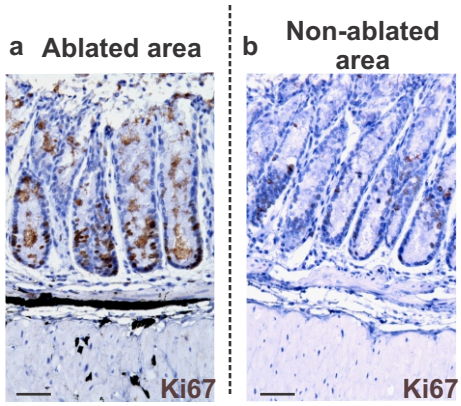
**Supplementary Figure 2. Focal ENS ablation results in increased crypt cell proliferation.** Ki67 staining shows a marked increase in epithelial cell proliferation in Wnt1-iDTR mice following DT injection.

Scale bar 50 μm (a,b).

**Supplementary Movie 1**. Spatiotemporal mapping of motility in a control colon one month after DT injection.

**Supplementary Movie 2.** Spatiotemporal mapping of motility in Wnt1-iDTR colon one month after DT injection.


a
Wnt1-iDTR (3 months)
Hu
b
Control (3 months)
Hu


a Ablated area
b Non-ablated area
Ki67
Ki67