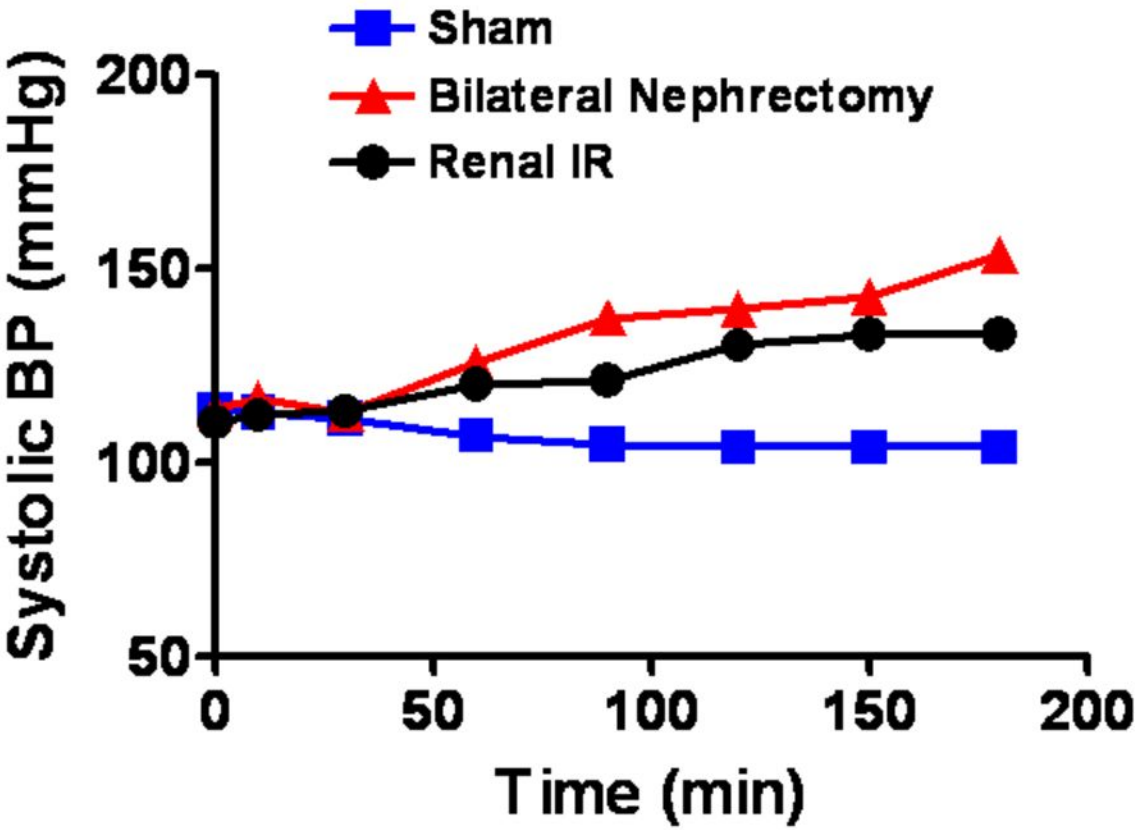
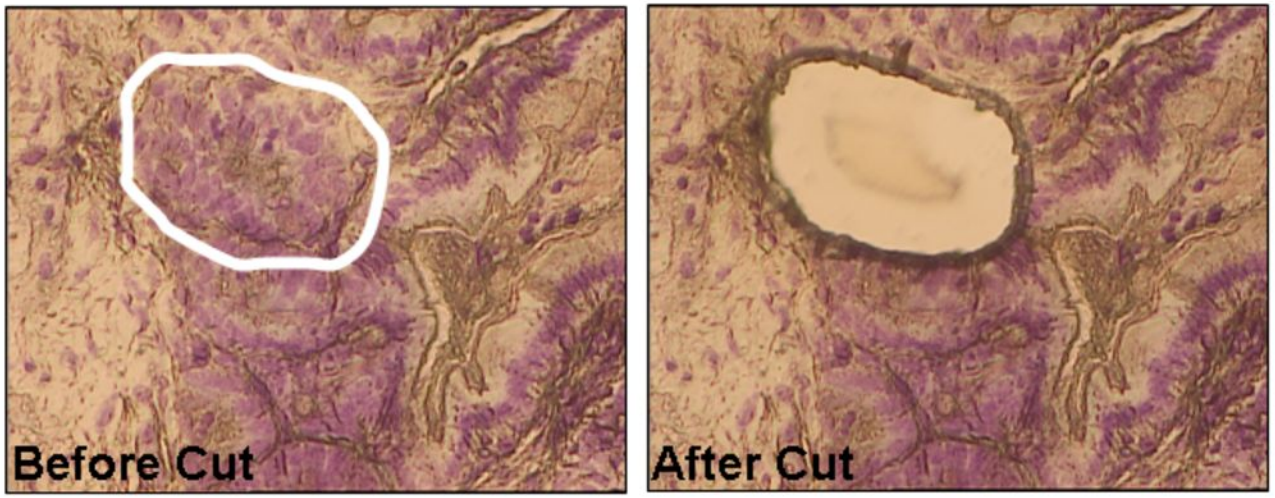
Supplementary Figure 1

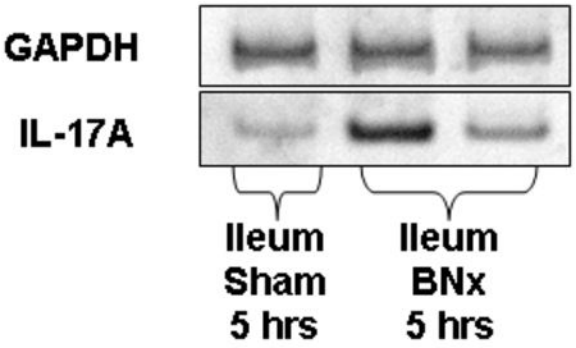


Supplementary Figure 2

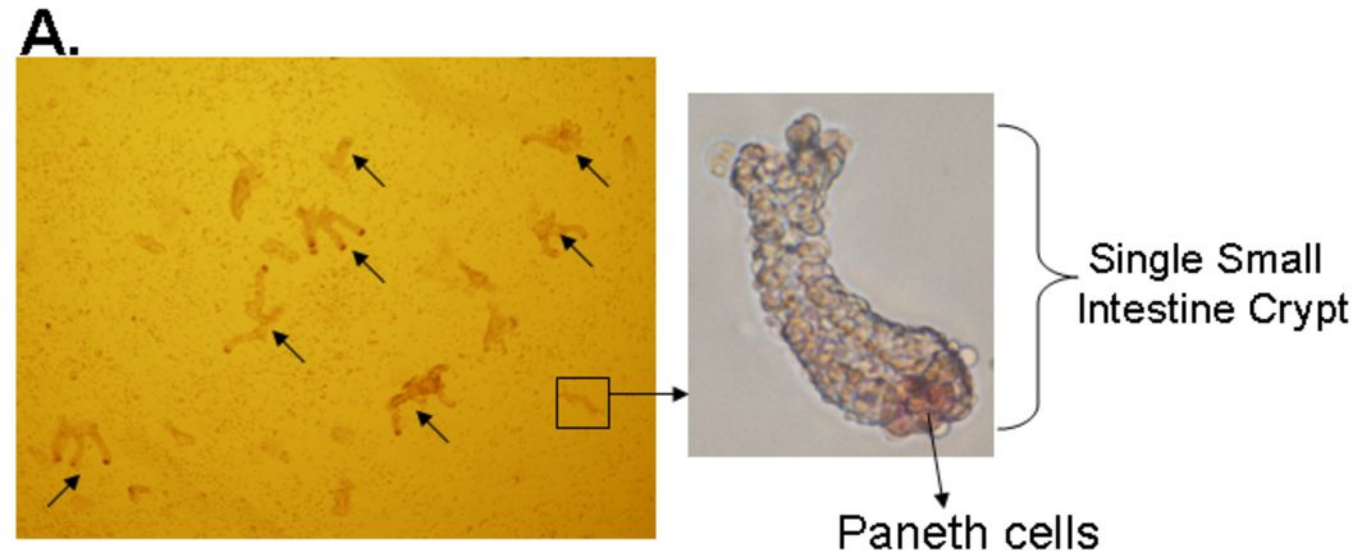
A.

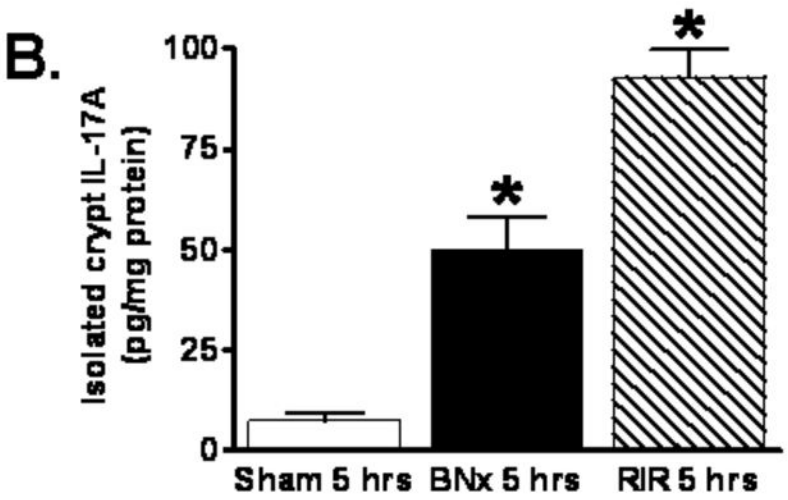


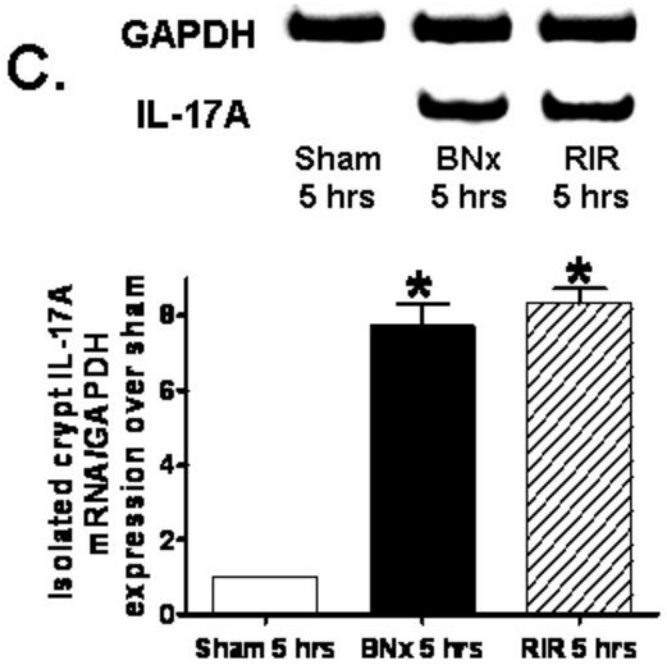
B.



Supplementary Figure 3







Supplementary Figure 4

Supplemental Figure Legends

Supplementary Figure 1. Continuous systolic BP measurement in a mouse subjected to sham-surgery, to renal IR or to bilateral nephrectomy. Representative of 3-4 experiments per group.

Supplementary Figure 2. Increased Paneth cell-derived IL-17A after AKI. A. Laser capture micro-dissection of Paneth cells. Mouse small intestine (ileum) Paneth cells before (top) and after (bottom) laser capture micro-dissection (400X magnification). B. Conventional RT-PCR analyses of Paneth cells extracted from laser capture micro-dissection show increased IL-17A transcripts in these cells 5 hr after bilateral nephrectomy (BNx, representative of 11 bilateral nephrectomy samples and 5 GAPDH samples).

Supplementary Figure 3. Isolation of small intestinal crypts containing Paneth cells. A. Representative (of 6 independent experiments) phase-contrast light microscopy images of isolated crypts. Small intestinal crypts were prepared *in vitro* by modified distended sac methods and stained with 0.5% eosin Y for 30 min. The eluted crypts were resuspended in PBS buffer and photographed under phase-contrast microscopy at magnification 40X. Isolated individual crypts are indicated by arrows. Enlarged insert (600X magnification) shows a single eosin Y-stained crypt with arrow indicating the Paneth cells at the bottom of crypt. B. Small intestinal crypts were isolated from mice subjected to sham-surgery or to acute kidney injury 5 hrs prior (bilateral nephrectomy (BNx) or 30 min renal ischemia and reperfusion (RIR)). IL-17A protein (determined

with ELISA) was increased in crypts isolated from mice subjected to acute kidney injury (N=4). C. qRT-PCR analyses of crypts also show increased IL-17 transcripts 5 hrs after acute kidney injury (BNx or 30 min RIR, N=4)). *P<0.05 vs. sham-operated mice. Error bars represent 1 SEM.

Supplementary Figure 4. A. Acute kidney injury causes Paneth cell degranulation in IL-17A deficient mice. Representative H&E staining images of small intestinal (ileum shown) Paneth cells from IL-17A deficient mice subjected to renal IR or bilateral nephrectomy (400X magnification). Both renal IR and bilateral nephrectomy resulted in small intestinal Paneth cell degranulation in 5 hrs. Inserts show enlarged images (2000X magnification) of Paneth cells showing degranulation into the crypt lumen. Representative of 3 experiments. **B-D. Recombinant murine IL-17A recapitulates hepatic, renal and intestinal injury in mice.** IL-17A injection (1 μg) in lieu of acute kidney injury recapitulates hepatic (B, Magnification 400X), renal (C, Magnification 200X) and small intestine (D, Magnification 200X) injury. Necrotic cells and debris were indicated by arrows. Representative of 3-4 experiments per group.