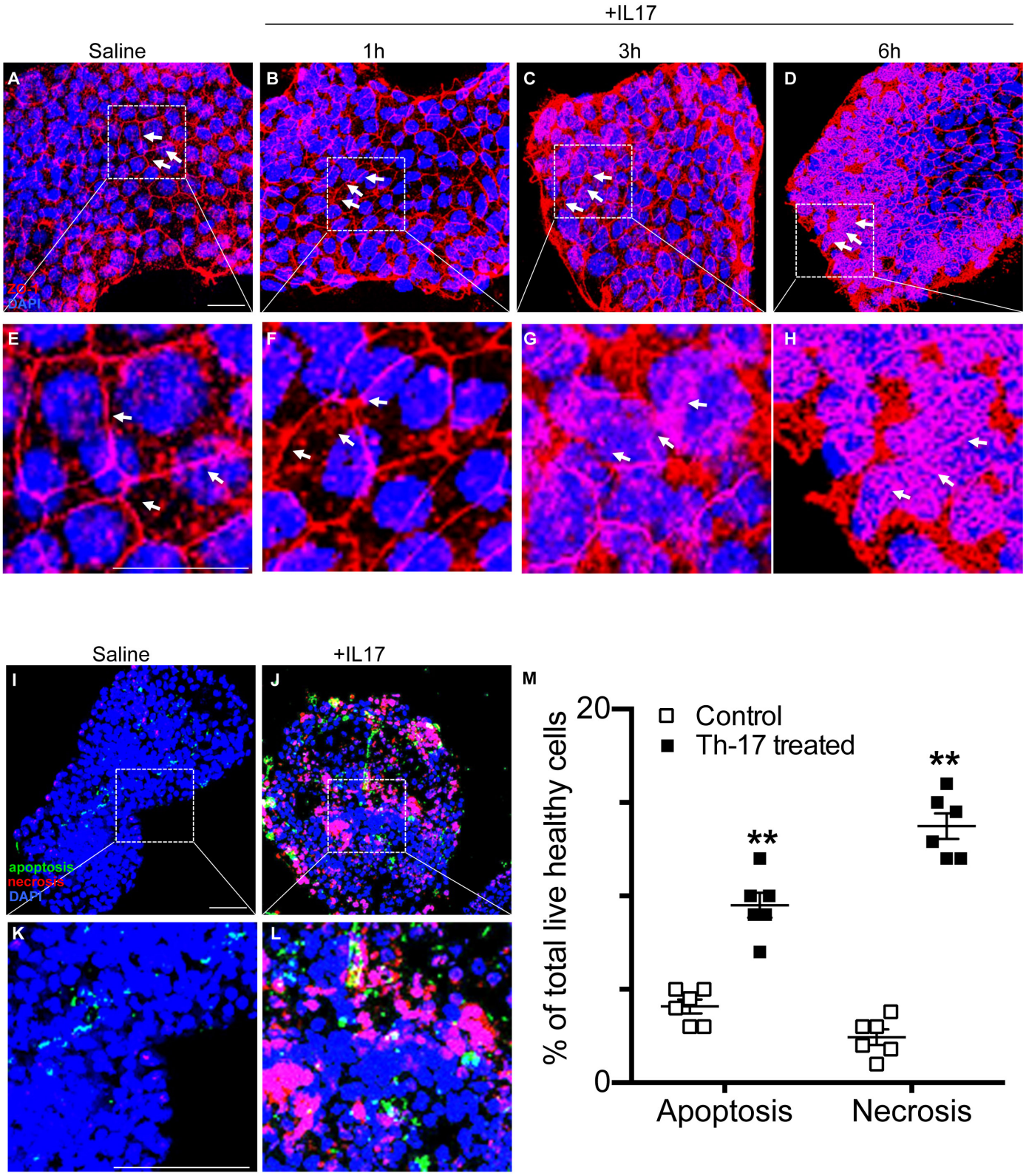
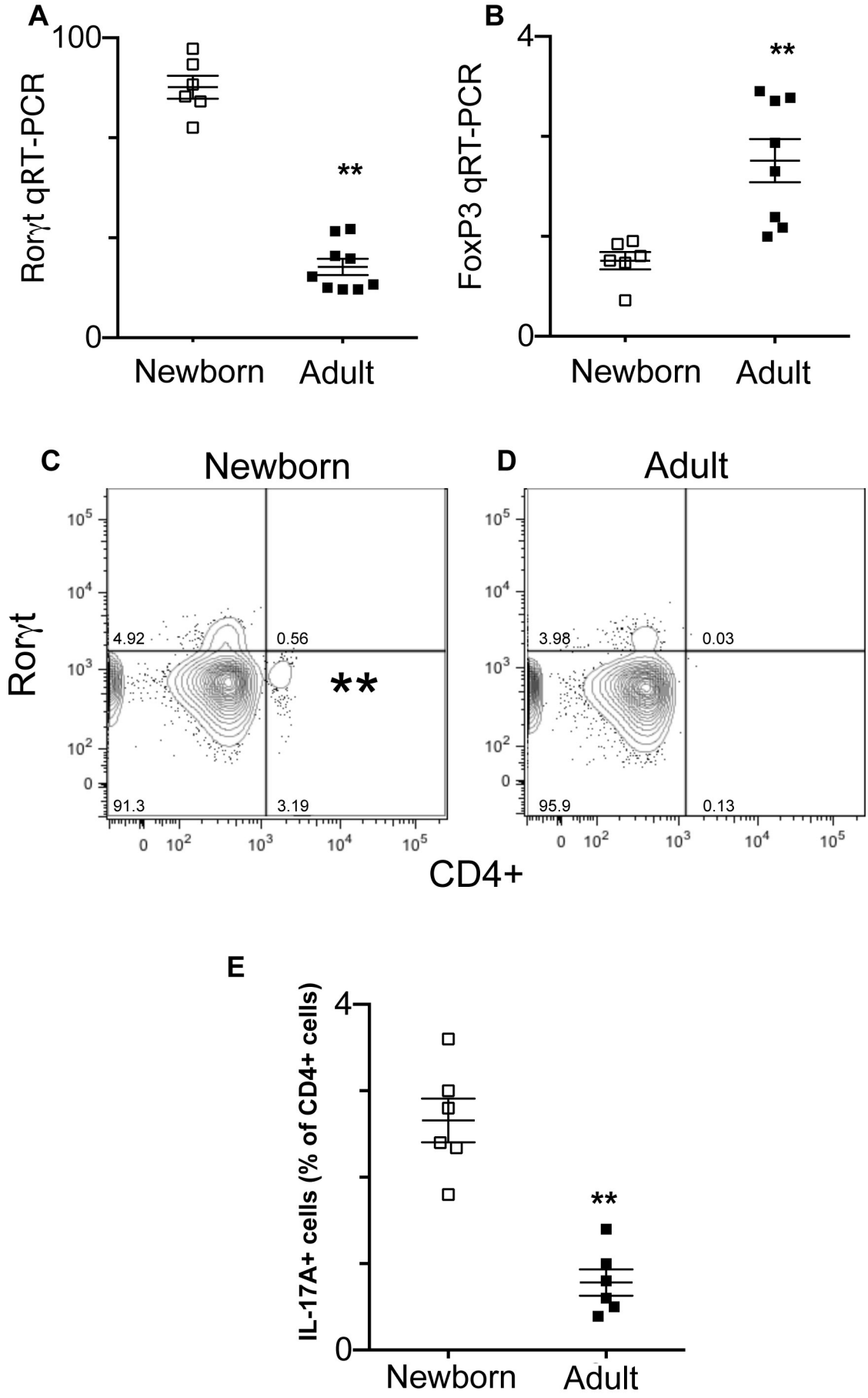
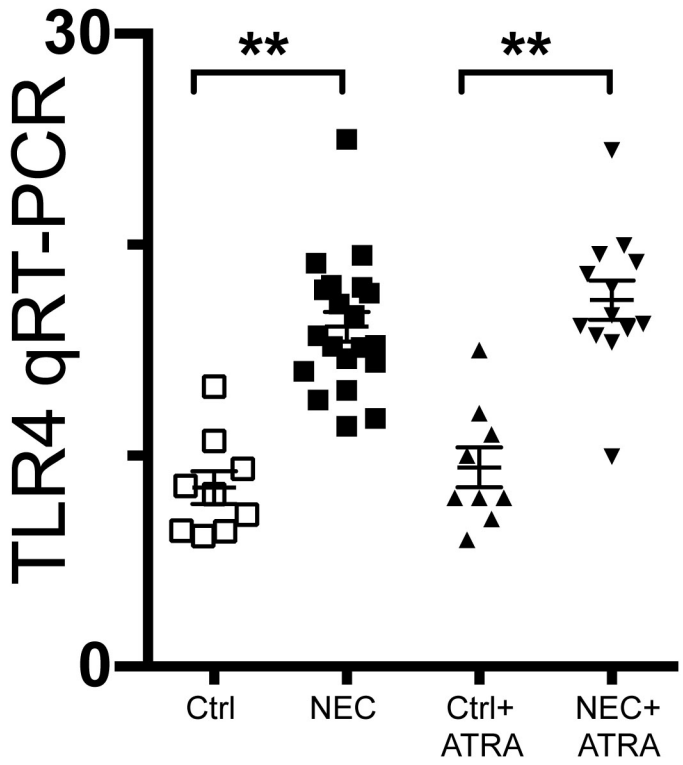


Supplemental Figure 1. *IL-17 treatment causes the internalization of tight junctions, as well as apoptosis and necrosis, of cultured enteroids from newborn mouse intestine.* **A-H:** Representative confocal micrographs showing cultured enteroids from the newborn small intestine treated with saline or IL-17 for the indicated time and stained for ZO-1 (red) and DAPI (blue). The outlined areas in **A-D** are shown at higher magnification in **E-H**; arrows reveal tight junctions. Size bar is 10μm. Representative of 3 separate experiments. **I-M:** Representative confocal micrographs showing the presence of apoptosis (green) or necrosis (red) in cultured enteroids treated with saline (**I, K**) or IL-17 for 48h (**J, L**). The outlined areas in **I-J** are shown at higher magnification in **K-L**; Size bar is 10μm. **M**: Quantification of apoptosis or necrosis under the indicated treatments. **p<0.05 black (Th17) versus white (saline) boxes; Representative of 3 separate experiments.



Supplemental Figure 2. *Newborn mice express more Th17 cells in the intestinal mucosa as compared with adult mice.* **A-B**: qRT-PCR expression of RORγt (**A**) and Foxp3+ (**B**) in the intestine of either newborn (8-9 day old) or adult (6 weeks old) mice, **p<0.05 between indicated groups by t-test; **C-D**: Flow cytometric analysis of RORγt+ cells in the lamina propria of newborn (**C**) or adult (**D**) mice; **p<0.05 between CD4+ RORγt+ cells between groups. Data pooled from 3 separate experiments.



Supplemental Figure 3. *The effect of the administration of all trans retinoic acid (ATRA) on the expression of TLR4 in the intestine of newborn mice with NEC.* qRT-PCR showing the expression of TLR4 in the intestine of newborn mice subjected to experimental NEC in the presence or absence of ATRA as indicated; **$p<0.05$ between indicated groups; t-test was used for comparisons. Data from 3 separate pooled experiments.