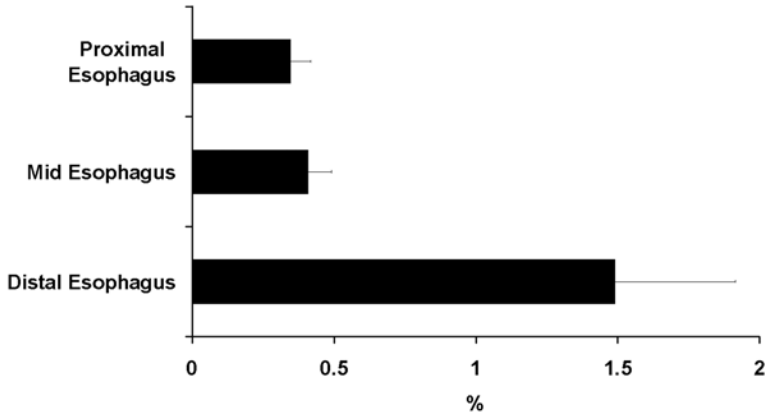
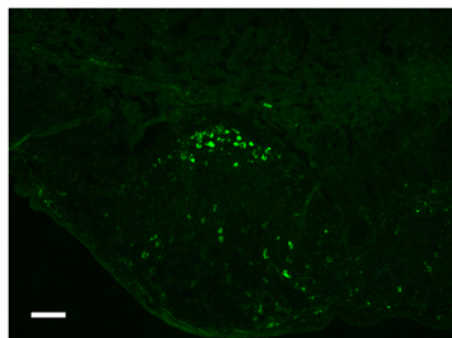
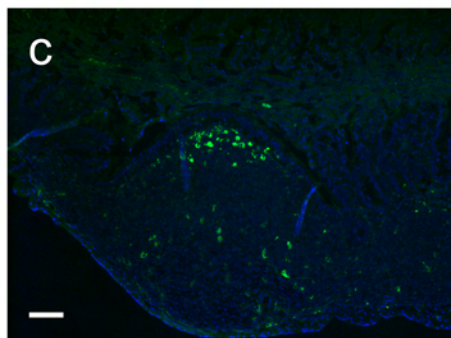
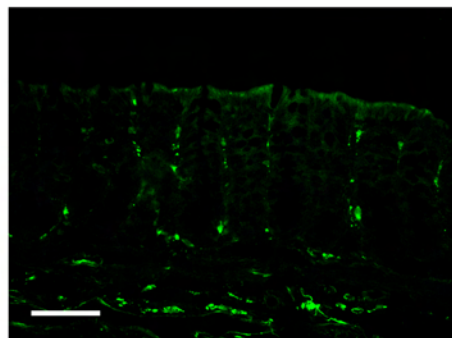
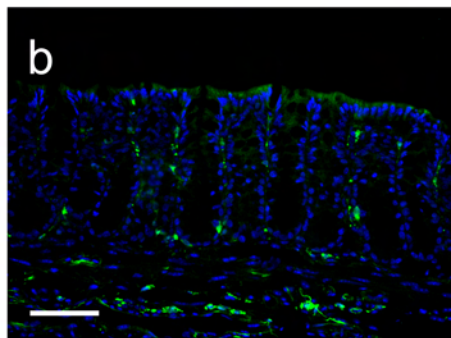
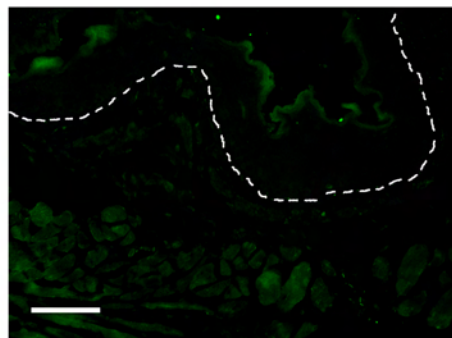
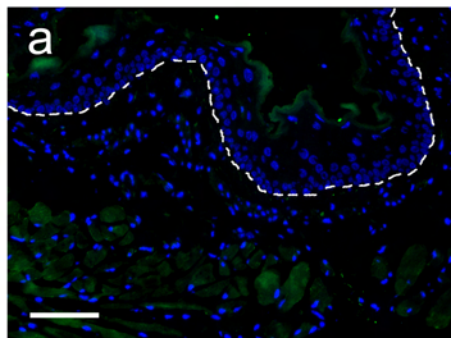


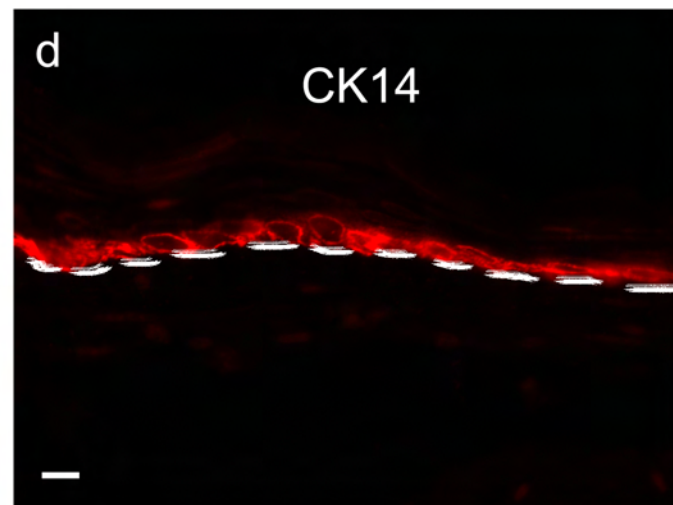
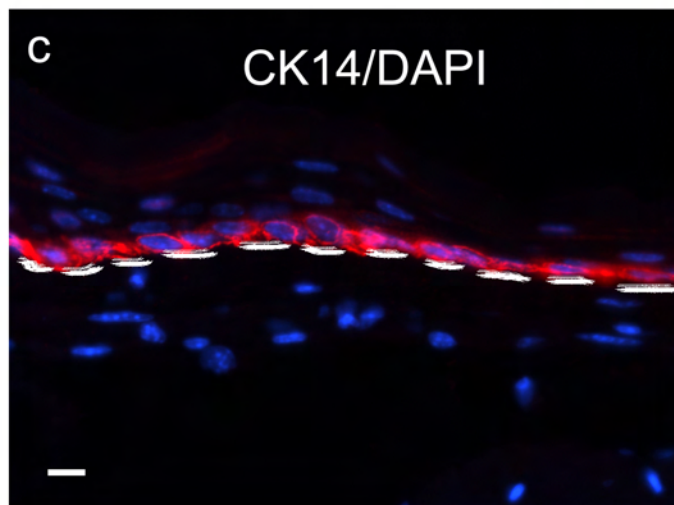
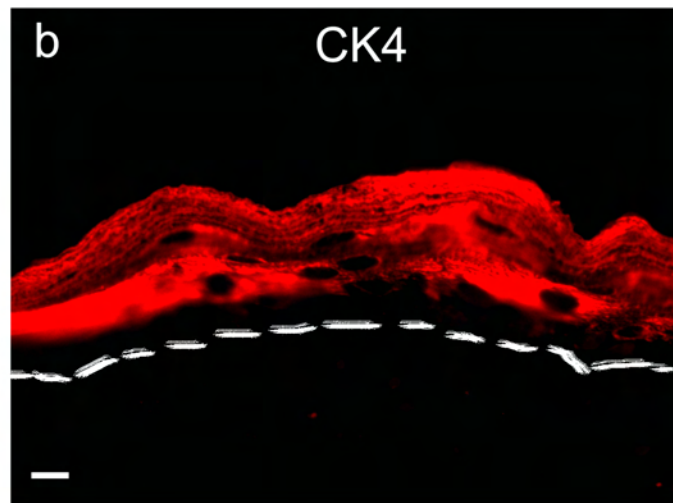
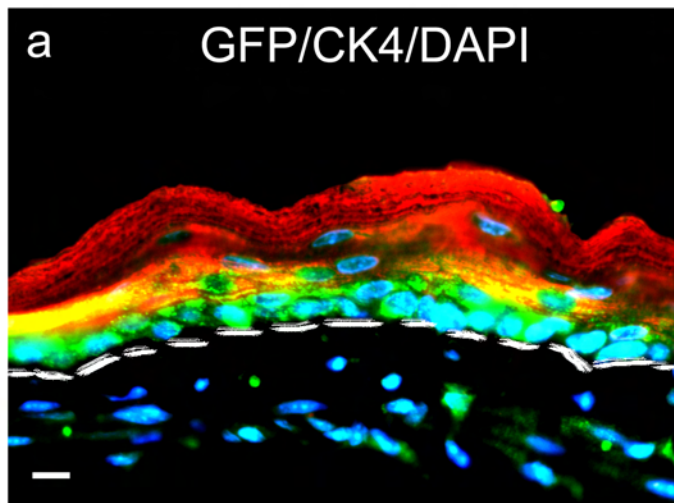
# Supplemental Figure 1



# Supplemental Figure 2



# Supplemental Figure 3



**Supplemental Figure 1: Distribution of BrdU+, LRC in the esophageal epithelium from the proximal esophagus to the mid-esophagus to the distal esophagus. (n=5 mice). The number of total cells counted in each esophageal segment was 2000 per mouse.**

**Supplemental Figure 2: Bone marrow derived cells do not contribute to the esophageal epithelium after radiation induced injury.**

Whole bone marrow cells were isolated from ROSA26-EGFP mice of FVB/N background and injected (tail-vein) into irradiated (12 Gray) recipient mice. Recipient mice were sacrificed after 6-7 months and tissues were harvested in OCT compound and processed for frozen sections. GFP positive cells were not detected in the esophageal epithelium or submucosa (**a**), but were detected in the colon (**b**) and the small intestinal Peyer Patches (**c**). Dashed line represents the basement membrane in (a). Dapi counterstain for nuclei is blue. Panels (a) and (b) are 200x, and panel (c) is 100x. Bar in all panels represents 25  $\mu$ m.

**Supplemental Figure 3**

The tissues in Figure 7 were subjected to immunofluorescence with antibodies to GFP and CK4, revealing co-localization (yellow) of GFP+ (CD34+ derived) and CK4+ in the suprabasal cell compartment of the repaired esophagus after injury (a). Note CK4+ cells (b) and CK4+ cells (c). All panels are 400x and bar in all panels represents 25  $\mu$ m.