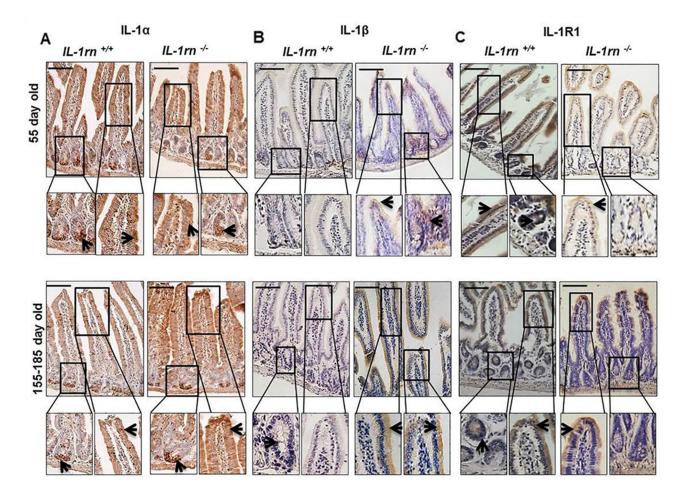
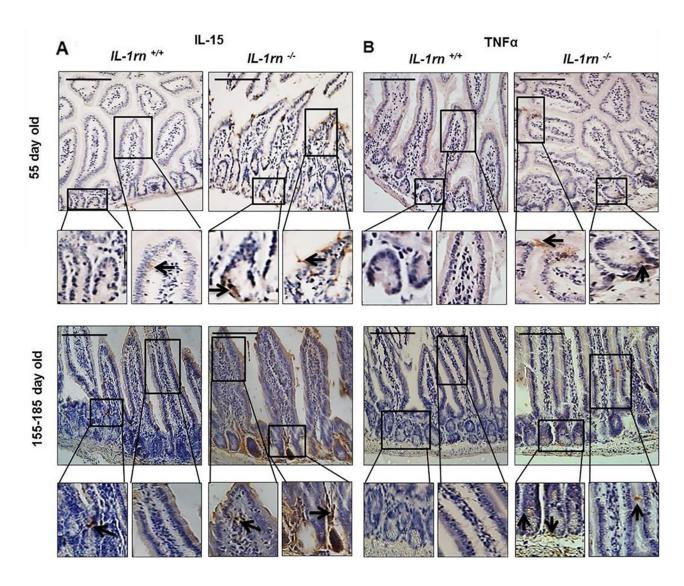
## Interleukin 1 is a key driver of inflammatory bowel diseasedemonstration in a murine IL-1Ra knockout model

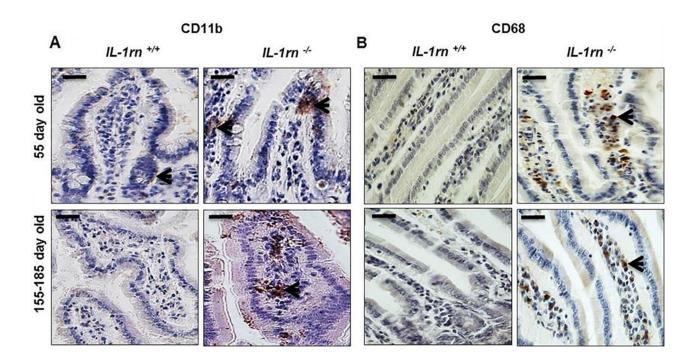
## **SUPPLEMENTARY MATERIALS**



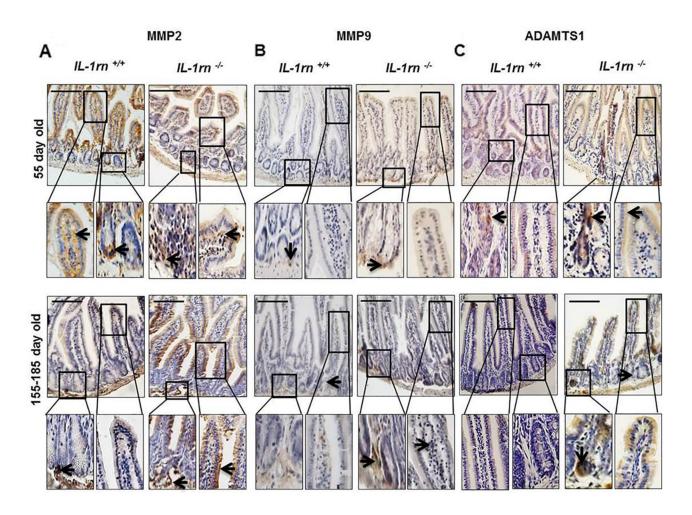
Supplementary Figure 1: Immunohistochemistry staining of the expression and localisation of pro-inflammatory cytokines. (A) IL-1 $\alpha$ ; (B) IL-1 $\beta$ ; (C) IL-1RI in the jejunum of the 55-day old and 155-185 day old IL-1rn<sup>-/-</sup> mice compared with IL-1rn<sup>+/+</sup> mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar = 100 $\mu$ m.



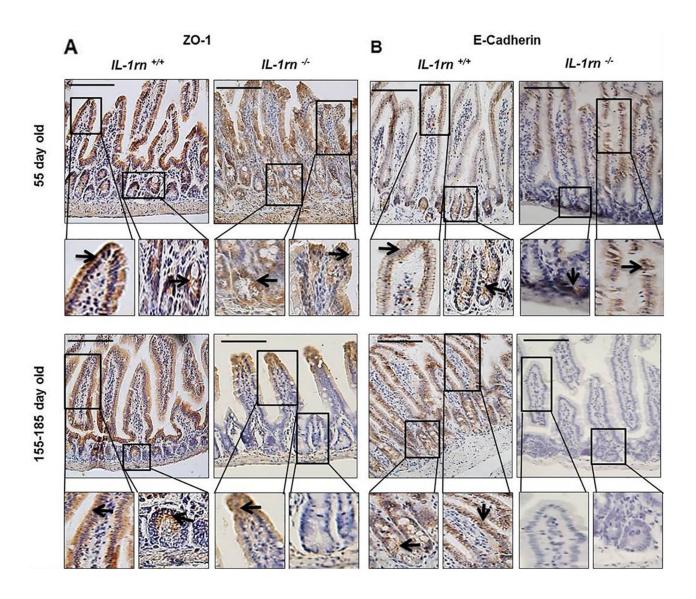
Supplementary Figure 2: Immunohistochemistry staining of the expression and localisation of pro-inflammatory cytokines. (A) IL-15; (B) TNF $\alpha$  in the jejunum of the 55-day old and 155-185 day old IL-1rn-/- mice compared with IL-1rn+/- mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar = 100 $\mu$ m.



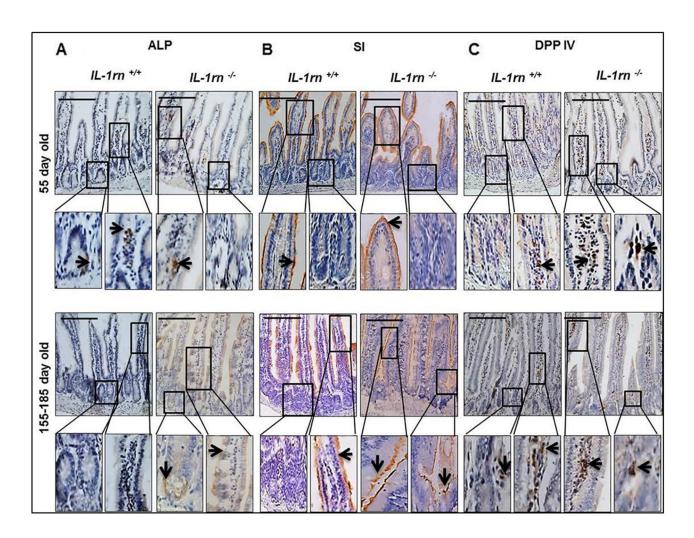
Supplementary Figure 3: Immunohistochemistry staining of infiltrating cells. (A) polymorphonuclear cells (PMNs) indicated by CD11b staining and (B) Macrophage cells (CD68) in the jejunum of the 55-day old and 155-185 day old IL-1rn<sup>-/-</sup> mice compared with IL-1rn<sup>+/+</sup> mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar =  $25\mu m$ .



**Supplementary Figure 4: Immunohistochemistry staining of the expression and localisation of degrading enzymes. (A)** MMP2; **(B)** MMP9; **(C)** ADAMTS1 in the jejunum of the 55-day old and 155-185 day old IL-1rn<sup>-/-</sup> mice compared with IL-1rn<sup>-/-</sup> mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar = 100μm.



Supplementary Figure 5: Immunohistochemistry staining of the expression and localisation of junctional proteins. (A) ZO-1; (B) E-cadherin in the jejunum of the 55-day old and 155-185 day old IL-1rn<sup>-/-</sup> mice compared with IL-1rn<sup>-/-</sup> mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar =  $100\mu m$ .



Supplementary Figure 6: Immunohistochemistry staining of the expression and localisation of digestive enzymes. (A) ALP; (B) SI and (C) DPP IV in the jejunum of the 55-day old and 155-185 day old IL-1rn<sup>-/-</sup> mice compared with IL-1rn<sup>-/-</sup> mice. Cell nuclei were stained with haematoxylin (blue). Black arrows indicate immunopositivity. Scale bar =  $100\mu m$ .