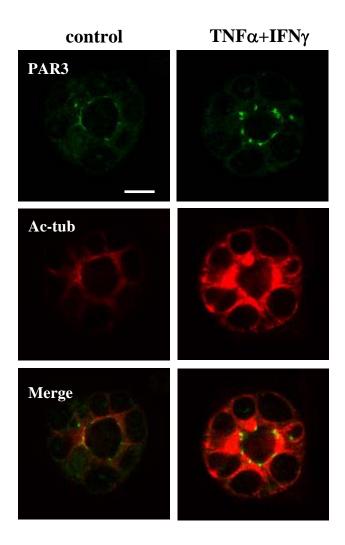
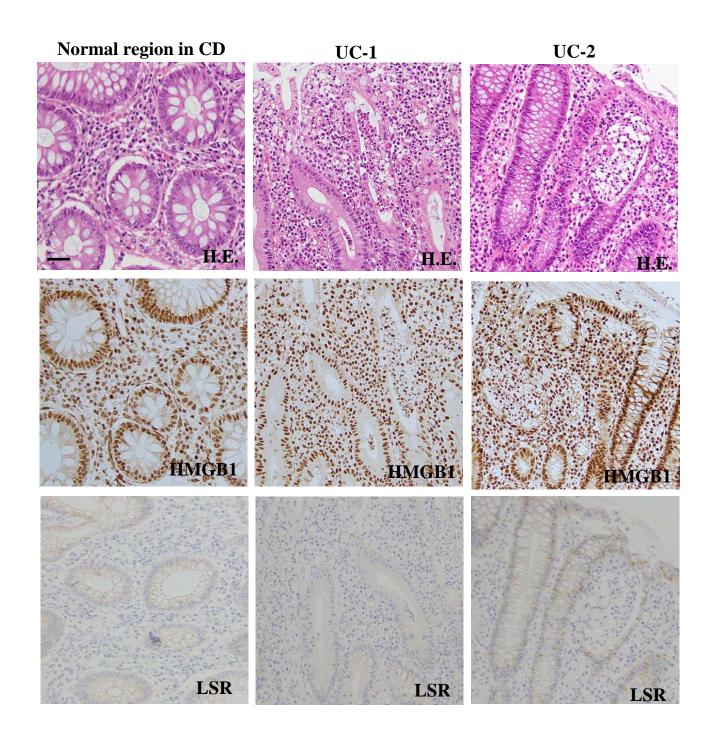


Supplemental Figure 1: Effects on tight junction molecules treated with IL-1 β or IL-13 in 2.5D Matrigel culture of Caco-2 cells. Immunocytochemistry for OCLN, LSR and TRLC in 2.5D Matrigel culture of Caco-2 cells pretreated with 10 μ M EW-7197, 10 μ M AG-1478 or 40 μ g/mL TNF α ab before treatment with 100 μ g/mL IL-1 β or 100 μ g/mL IL-13. Scale bar: 20 μ m.



Supplemental Figure 2: Effects of treatments with TNF α and IFN γ on cilia formation in 2.5D Matrigel culture of Caco-2 cells. Immunocytochemistry for PAR3 and Ac-tub in 2.5D Matrigel culture of Caco-2 treated with 100 µg/mL TNF α and 100 µg/mL IFN γ . Scale bar: 20 µm.



Supplemental Figure 3: Expression and distribution of LSR and HMGB1 in human normal colonic tissues and IBD tissues. Hematoxylin-eosin (H.E.) staining and immunohistochemical staining for HMGB1 and LSR in normal human colonic tissues and colonic those of the IBD colon. CD: Crohn's disease. UC: Ulcerative colitis. Bar: $50~\mu m$.