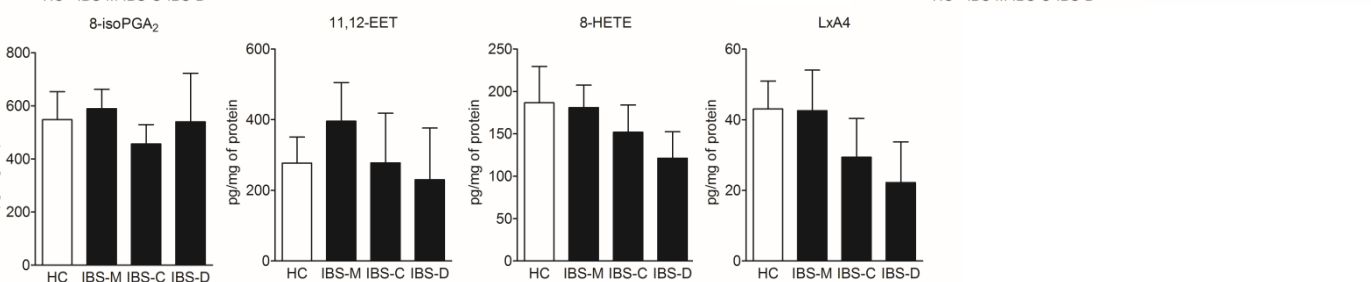
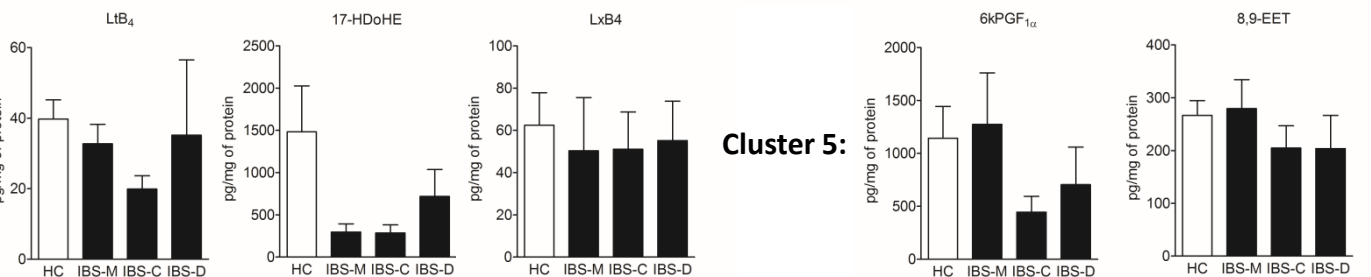
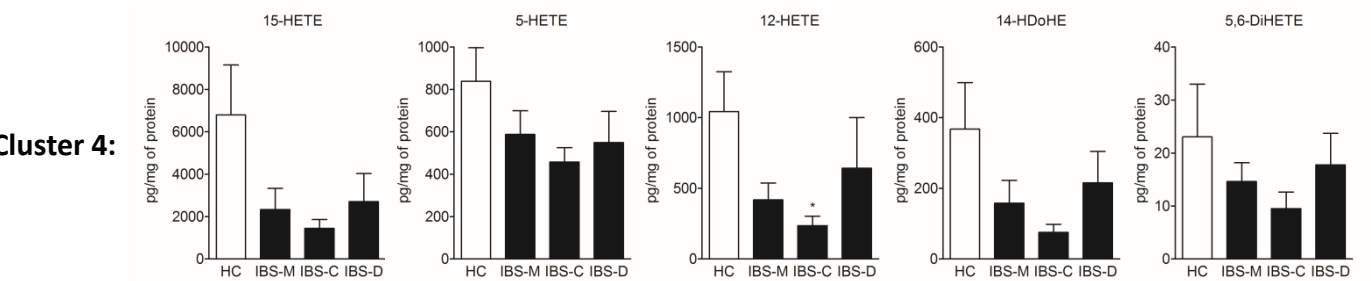
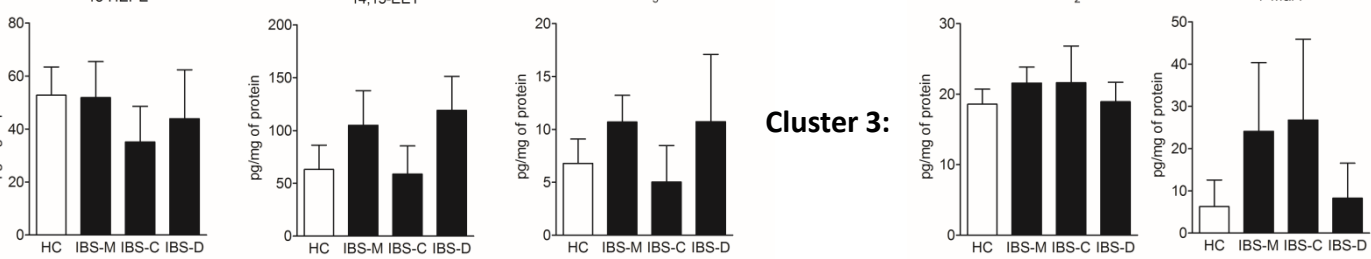
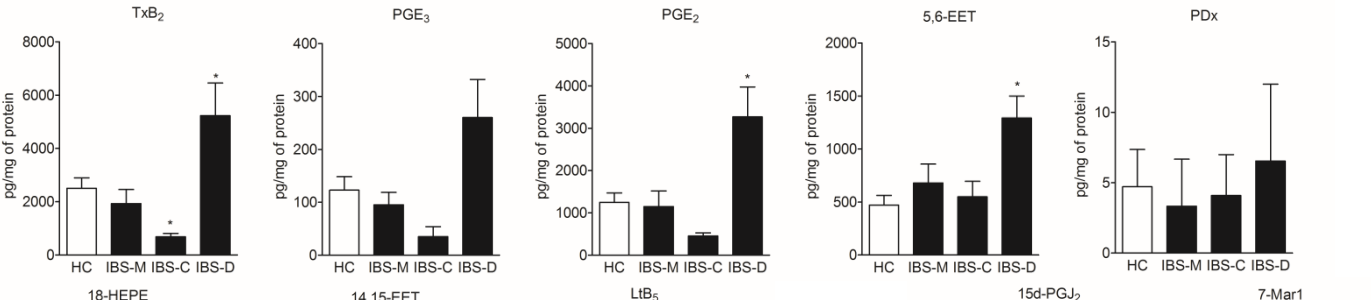
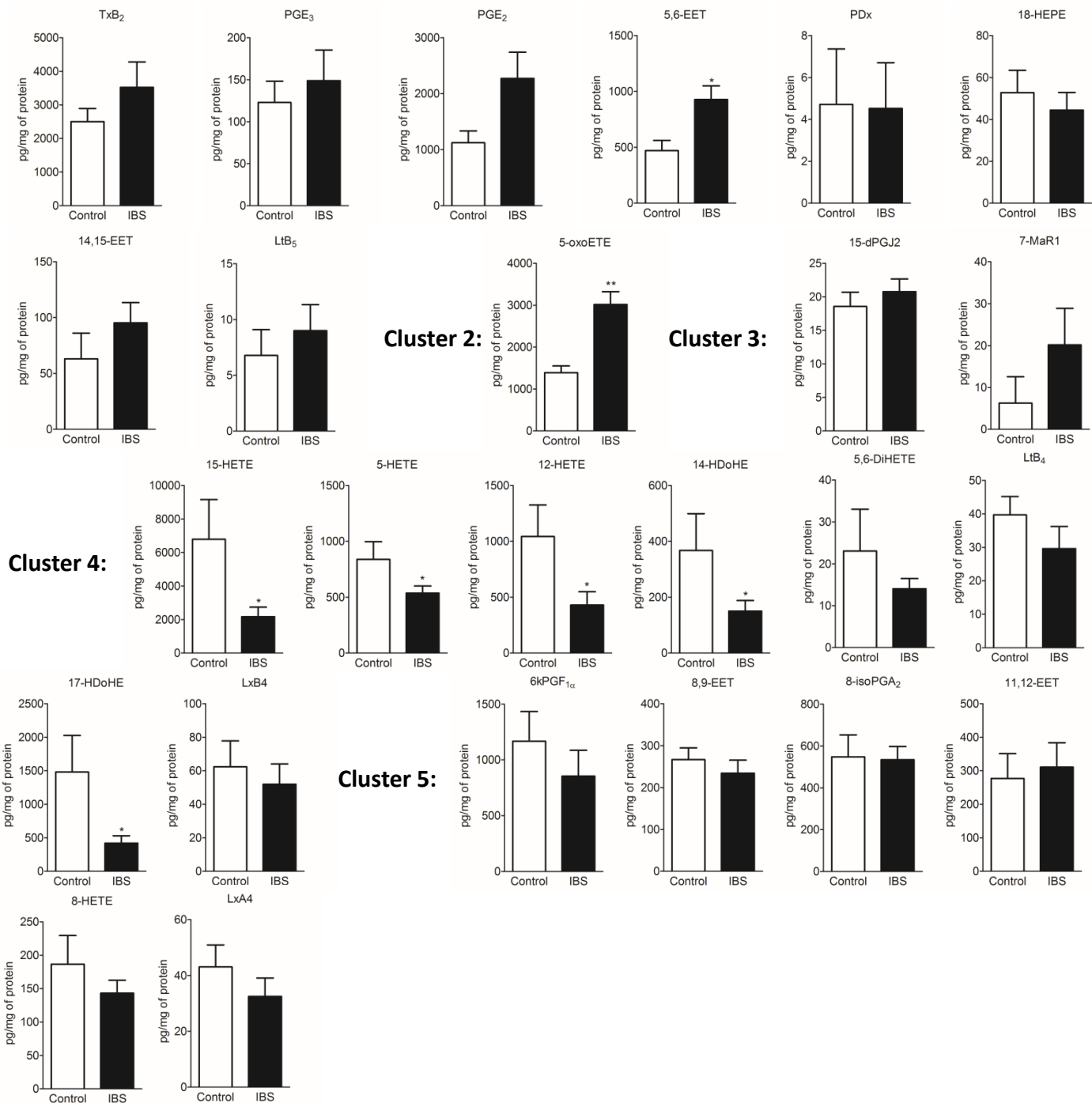


Cluster 1:

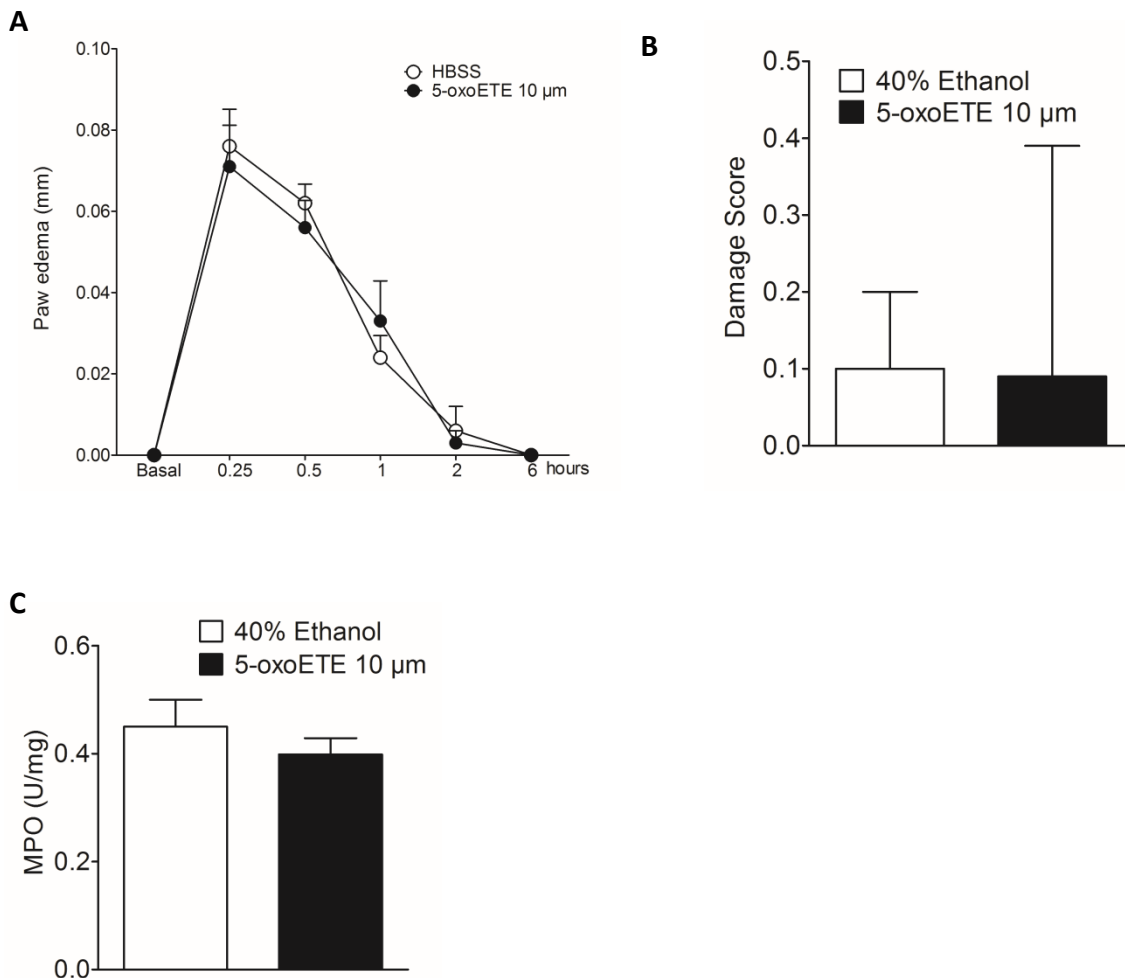


**Fig. S1: Concentration of PUFA metabolites in biopsies of IBS patients.** PUFA concentration in control patients (white bar) and IBS patients (black bar). Data are expressed in pg/mg protein and represent means ± SEM of 14 to 20 patients per group. \*p<0.05 significantly different from control group.

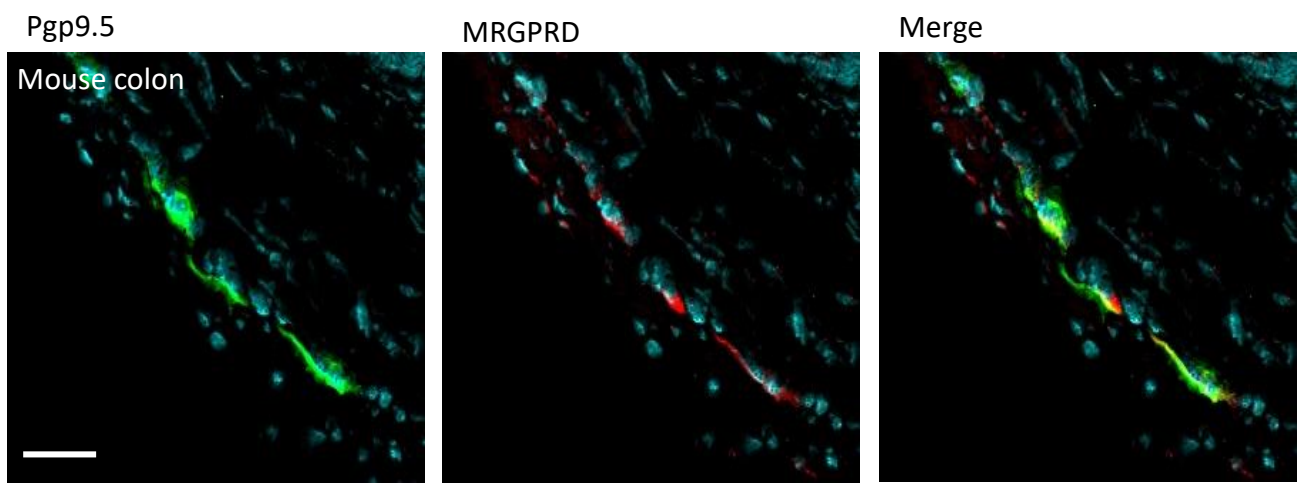
## Cluster 1:



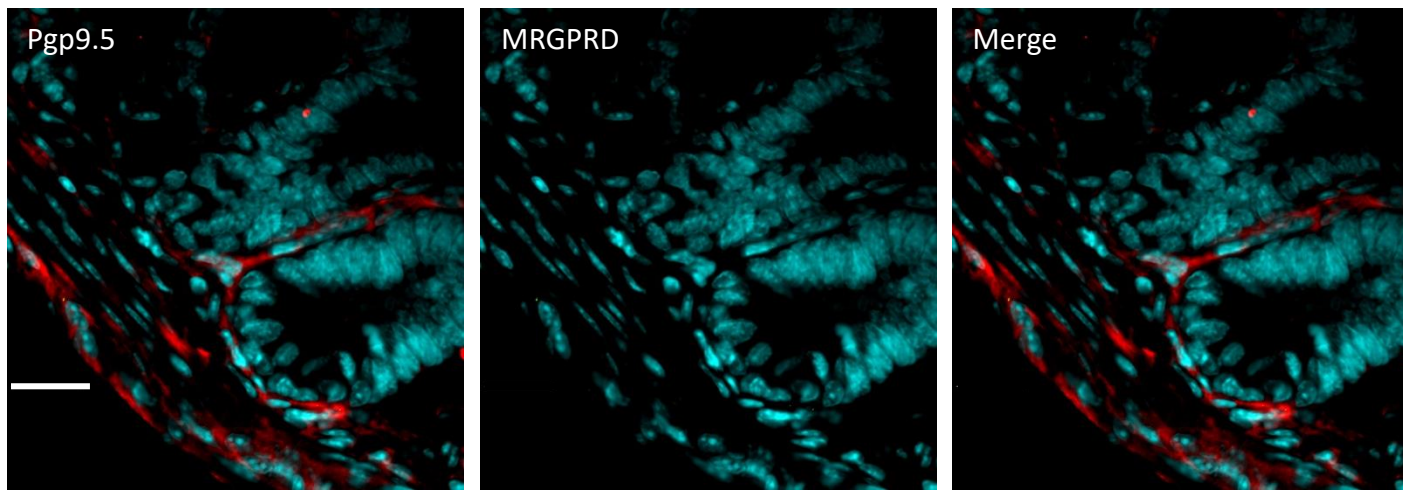
**Fig. S2: Concentration of PUFA metabolites in biopsies of all IBS patients.** PUFA concentration in control patients (white bar) and IBS patients (black bar). Data are expressed in pg/mg protein and represent means  $\pm$  SEM of 14 to 20 patients per group. \* $p < 0.05$ ; \*\* $p < 0.01$  significantly different from control group.



**Fig. S3: 5-oxoETE does not induce somatic or visceral inflammation *in vivo*.** **A** Mice were subcutaneously injected with either HBSS (white circle) or 5-oxoETE (10 $\mu$ M, black circle) into hind footpads and paw diameter determined at different times (15 and 30 min, 1, 2 and 6 hours) following intraplantar injection; n=3 independent experiments of 5 mice per groups. In a second set of experiment, mice were intracolonicly administered with 5-oxoETE or its vehicle (40% ethanol); colons were harvested 1 hour after the administration and both the macroscopic damage score (**B**) and myeloperoxidase activity (**C**) determined; n=2 experiments of 10 mice per group. Data are expressed as mean  $\pm$  SEM.



**Figure S4: MRGPRD immunoreactivity is observed in mouse colon.** Representative pictures of MRGPRD (in red) and PGP9.5 (in green) immunoreactivity in mouse colon (scale bar = 50  $\mu$ m).  
Expression of MRGPRD in whole human dorsal root ganglia



**Fig. S5: MRGPRD immunoreactivity is not observed in colon of MRGPRD deficient mice.** Representative pictures of DAPI (in cyan), MRGPRD (in green) and PGP9.5 (in red) immunoreactivity in mouse colon (scale bar = 20  $\mu\text{m}$ )