

Figure 5:

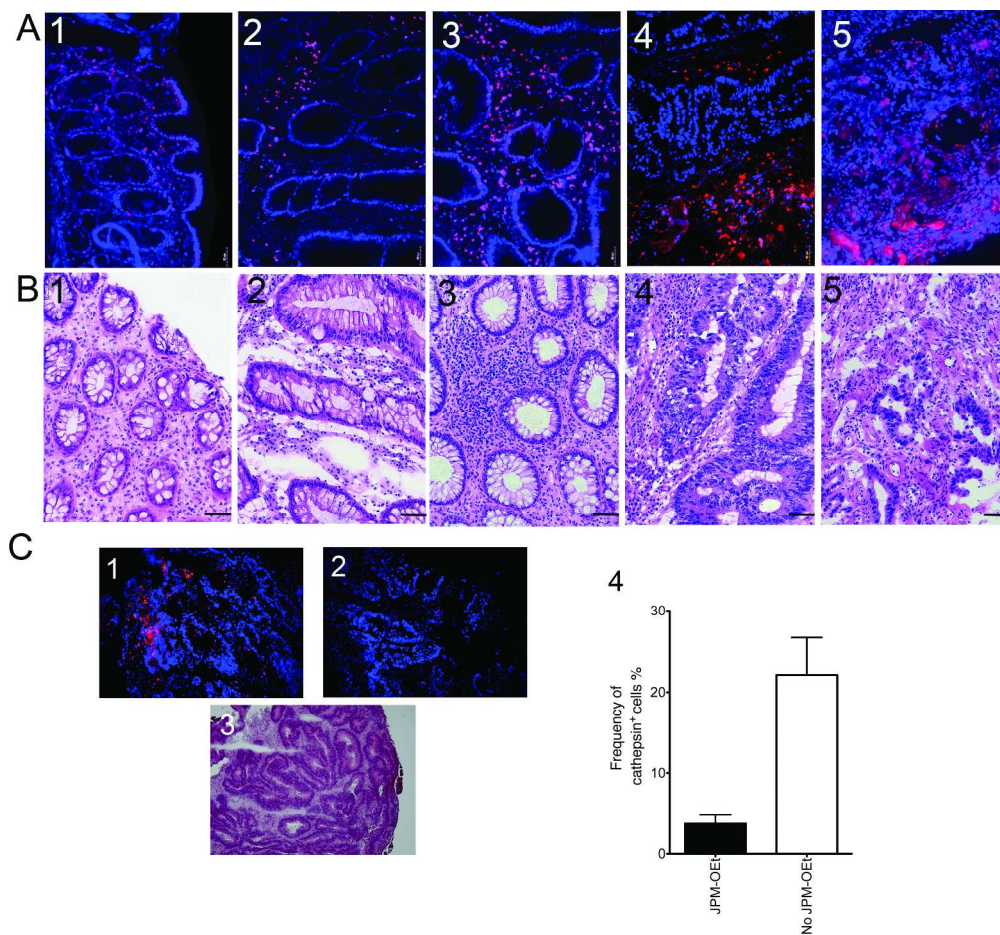
Numbers of cathepsin+ cells are increased in areas of dysplasia compared to colitis in patient biopsies: Dot plot frequencies of cathepsin+ cells stratified according to H&E analysis. Control (C), mild colitis (MLD), moderate colitis (MOD), low-grade dysplasia (LGD) and high grade dysplasia and colitis-associated cancer (HGD/CAC)

Supplementary Figure 1:

Numbers of cathepsin+ cells are increased in areas of dysplasia compared to colitis in patient biopsies. Snap frozen tissue sections from areas of 1) control (C), 2) mild colitis (MLD), 3) moderate colitis (MOD), 4) low grade dysplasia (LGD) and 4) high grade dysplasia and colitis-associated cancer (HGD/CAC) are shown. A) Biopsies were interrogated in situ for cathepsin activity with SBP 680, and counterstained with DAPI (cathepsin activity red, DAPI blue). B) H&E staining of corresponding serial sections are shown. C) Moderate colitis patients biopsies stained for cathepsin activity without(1) and with addition of the cathepsin inhibitor JPM-Oat(2). (3) H&E image of sequential section. The mean frequencies of cathepsin+ cells are shown +/- SEM in the bar graph (P=0.001). The results indicate that cathepsin imaging in situ is specific.

Table 1: Types of lesions with high to moderate emissions.

	Mucosa	MFI	SNR	Histology
Type A	Raised	High	High	Dysplastic
Type B	Flat	High	High	Dysplastic
Type C	Raised	Moderate	Moderate	Lymphoid aggregate
Type D	Raised	Moderate	Moderate	Ulcer



dysplasia (LGD) and high grade dysplasia and colitis-associated cancer (HGD/CAC)

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