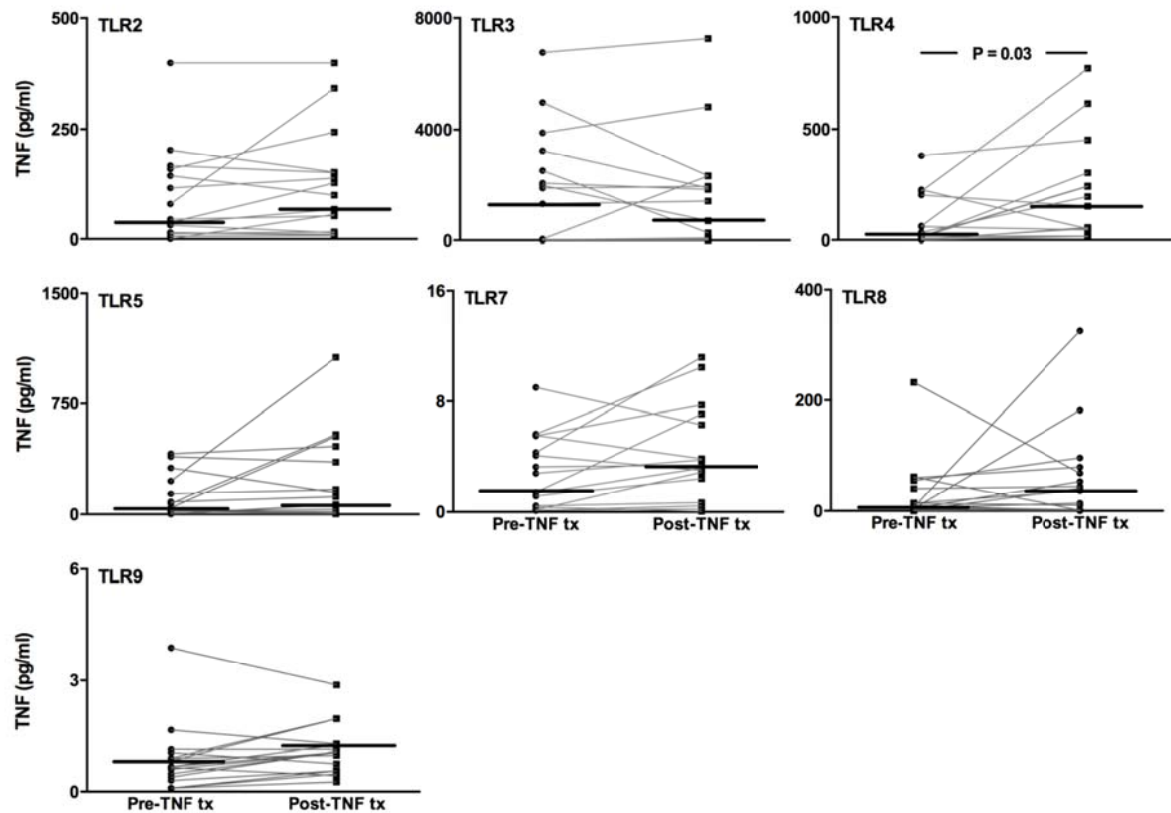


**Supplementary Figure 1 Basal cytokine production pre- and post-anti-tumor necrosis factor therapy.** Basal pro-inflammatory (TNF, IL-1 $\beta$ , IL-6), immune-regulatory (IL-10), Th1 (IL-12, IFN $\gamma$ ) and Th2 (IL-9, IL-13, IL-17A) cytokine expression was assessed in PBMCs isolated from CD and UC patients pre- and 3 months after commencing anti-TNF therapy ( $n = 18$ ). Results were expressed as cytokine concentration (pg/mL), the grey lines connect matched patient data (pre- and post-anti-TNF therapy), and the solid black lines represents the population median cytokine production. CD: Crohn's disease; UC: Ulcerative colitis; TNF: Tumor necrosis factor; IL: Interleukin.



**Supplementary Figure 2 Stimulated tumor necrosis factor production pre- and post-anti-tumor necrosis factor therapy.** Stimulated TNF expression was assessed in PBMCs isolated from UC patients pre- and 3 months after commencing anti-TNF therapy ( $n = 18$ ). Results were expressed as cytokine concentration (pg/mL), the grey lines connect matched patient data (pre- and post-anti-TNF therapy), and the solid black lines represent the median TNF production. The  $P$  values represent statistical significance of  $< 0.05$  between pre- and post-anti-TNF groups as denoted. UC: Ulcerative colitis; PBMC: Peripheral blood mononuclear cells; TLR: Toll-like receptor; TNF: Tumor necrosis factor.

Supplementary Table 1 Antibody and isotype control panels for peripheral blood mononuclear cells characterisation

	Cell	Antibody	Fluorophore	Dilution	Company
Panel 1	Monocytes	HLA-DR	APC-eFluor780 IgG2b	1:100	eBiosciences, San Diego, CA, United States
		CD14	PE IgG2b	1:100	BD Biosciences, San Jose, CA, United States
	Natural killer cells	CD16	PerCp-Cy5.5 IgG1	1:100	BD Biosciences, San Jose, CA, United States
		CD56	FITC IgG2b	1:200	BD Biosciences, San Jose, CA, United States
	Myeloid dendritic cells	Lin1 (CD3, CD14, CD16, CD19, CD20 and CD56)	FITC IgG1	1:200	BD Biosciences, San Jose, CA, United States
Panel 2	Plasmacytoid dendritic cells	HLA-DR	APC-eFluor780 IgG2b	1:100	eBiosciences, San Diego, CA, United States
		CD123	PerCp-Cy5.5 IgG2a	1:50	BD Biosciences, San Jose, CA, United States
		CD11c	Pacific blue IgG1	1:100	BioLegend, San Diego, CA, United States
		Lin1 (CD3, CD14, CD16, CD19, CD20 and CD56)	FITC IgG1	1:200	BD Biosciences, San Jose, CA, United States
		HLA-DR	APC-AF750 IgG2b	1:100	BioLegend, San Diego, CA, United States
Panel 3	T cells	CD123	PerCp-Cy5.5 IgG2a	1:50	BD Biosciences, San Jose, CA, United States
		CD11c	Pacific blue IgG1	1:100	BioLegend, San Diego, CA, United States
		CD4	AF488 IgG1	1:100	BD Biosciences, San Jose, CA, United States
		CD25	PerCp-Cy5.5 IgG1	1:50	BD Biosciences, San Jose, CA, United States
		CD127	PE IgG1	1:50	BD Biosciences, San Jose, CA, United States
		CD8	Pacific blue IgG1	1:200	BioLegend, San Diego, CA, United States
Panel 4	Memory T cells	CD45RO	PE IgG2a	1:100	BD Biosciences, San Jose, CA, U United States
	Naïve T cells	CD45RA	APC IgG2b	1:100	BD Biosciences, San Jose, CA, United States
		CD4	AF488 IgG1	1:100	BD Biosciences, San Jose, CA, United States

	Isotype	Dilution	Company
Panel 1	APC-eFluor780 IgG2b	1:100	eBiosciences, San Diego, CA, United States
	PE IgG2b	1:100	BD Biosciences, San Jose, CA, United States
	PerCp-Cy5.5 IgG1	1:100	BD Biosciences, San Jose, CA, United States
	FITC IgG2b	1:200	BD Biosciences, San Jose, CA, United States
	FITC IgG1	1:200	BD Biosciences, San Jose, CA, United States
Panel 2	APC-eFluor780 IgG2b	1:100	eBiosciences, San Diego, CA, United States
	PerCp-Cy5.5 IgG2a	1:50	BD Biosciences, San Jose, CA, United States
	Pacific blue IgG1	1:100	BioLegend, San Diego, CA, United States
	APC-AF750 IgG2b	1:100	BioLegend, San Diego, CA, United States
Panel 3	AF488 IgG1	1:100	BD Biosciences, San Jose, CA, United States
	PerCp-Cy5.5 IgG1	1:50	BD Biosciences, San Jose, CA, United States
	PE IgG1	1:50	BD Biosciences, San Jose, CA, United States
	Pacific blue IgG1	1:200	BioLegend, San Diego, CA, United States
	PE IgG2a	1:100	BD Biosciences, San Jose, CA, United States
Panel 4	APC IgG2b	1:100	BD Biosciences, San Jose, CA, United States
	AF488 IgG1	1:100	BD Biosciences, San Jose, CA, United States