

**Supplementary Table 7.** Details of the differentially methylated probes identified within inflammation associated genes. TSS1500 are probes that are located within 1500 bp upstream of the start codon; TSS200 probes located within 200 bp upstream of the start codon; 1<sup>st</sup> exon are probes located within the 1<sup>st</sup> exon of the gene and body are probes located within the gene body.

Gene	CpG probe ID	Chr.	Location	Region	Mean $\beta$ value NOF	Mean $\beta$ value OA hip cluster 1	Mean $\beta$ value OA hip cluster 2	Benjamini-Hochberg p value
<i>TNF</i>	cg21370522	6	31543219	TSS200	0.59	0.64	0.47	0.02
	cg01569083		31543289	TSS200	0.56	0.58	0.46	0.03
	cg03037030		31543300	TSS200	0.44	0.46	0.27	0.01
	cg12681001		31543540	1 <sup>st</sup> Exon	0.47	0.50	0.37	0.02
	cg21222743		31543545	1 <sup>st</sup> Exon	0.33	0.37	0.26	0.005
	cg10717214		31543557	1 <sup>st</sup> Exon	0.45	0.46	0.37	0.04
<i>IL6</i>	cg00087425	7	22766829	1 <sup>st</sup> Exon	0.19	0.19	0.10	0.003
	cg13104385		22767384	Body	0.69	0.71	0.60	0.04
	cg05265849		22767390	Body	0.36	0.36	0.25	0.03
	cg07998387		22767571	Body	0.43	0.44	0.58	0.005
<i>CXCR2</i>	cg25941354	2	218989983	TSS1500	0.58	0.61	0.48	0.02
	cg10591797		218990598	TSS200	0.73	0.76	0.65	0.02
	cg13739417		218990627	TSS200	0.64	0.70	0.58	0.04
<i>CCL5</i>	cg02483931	17	34202461	Body	0.45	0.44	0.31	0.005
	cg08656816		34207454	TSS200	0.47	0.38	0.22	0.0008
<i>CCL2</i>	cg17864156	17	32582828	Body	0.44	0.44	0.32	0.01
<i>IL1A</i>	cg00839584	2	113542091	1 <sup>st</sup> Exon	0.55	0.58	0.45	0.04