

S. Fig. 1 TEM images of PBMCs Cy-SPIONs treated. (A) Untreated PBMCs. Transmission electronic microscope captured image of lymphocytes (*) and monocytes (#). Lymphocytes show a slightly indented nucleus, with plenty of heterochromatin, scant cytoplasm with few organelles (Golgi complex, mitochondria). The nucleus of monocytes, more voluminous than lymphocytes, has less *elettrondensa* chromatin; the abundant cytoplasm shows numerous organelles (Golgi complex, endoplasmic reticulum, mitochondria and numerous electron-granules). Vesicles are also visible in amorphous content (§). (B) Cy-SPIONs (200 μ g/ml) treated PBMCs. Lymphocytes (*) and monocytes (#) are clearly visible. Monocytes present large cytoplasmic protrusions and large vacuoles of phagocytosis, containing small electron-clusters, corresponding to aggregates of particles (arrow) suggesting the nanoparticles uptake. Cy-SPIONs are also present in the extracellular medium (arrow). Bar scale correspond to 1 μ m (3000 X).

Layout	01	02	03	04	05	06	07	08	09	10	11	12
A	APCS	C3	CASP1	CCL2	CCL5	CCR4	CCR5	CCR6	CCR8	CD14	CD4	CD40
	-2.99	- 1.91	-1.21	-1.62	1.98	-1.87	-1.18	-2.04	-2.30	- 3.22	- 1.29	1.65
в	CD40LG -1.95	CD80 - 2.28	CD86 3.65	CD8A - 4.05	CRP -1.99	CSF2 -1.80	CXCL10 -2.62	CXCR3 -2.25	DDX58 - 1.25	FASLG - 3.86	FOXP3	GATA3 -12049.55
с	HLA-A	HLA-E	ICAM1	IFNA1	IFNAR1	IFNB1	IFNG	IFNGR1	IL10	IL13	IL17A	IL18
	9.05	1.18	- 2.14	-5.22	-1.00	-2.54	2.11	379.15	2.23	- 1.38	- 1.92	- 1.85
D	IL1A	IL1B	IL1R1	IL2	IL23A	IL4	IL5	IL6	IL8	IRAK1	IRF3	IRF7
	- 3.28	-1.01	- 1.87	-1.81	1.34	-1.81	-1.13	- 2.29	- 2.04	2.76	1.19	-1.37
E	ITGAM	JAK2	LY96	LYZ	MAPK1	MAPK8	MBL2	MPO	MX1	MYD88	NFKB1	NFKBIA
	- 1.45	1.04	- 1.95	1.43	2.37	- 1.74	-1.91	1.57	-1.47	1.02	1.52	1.54
F	NLRP3	NOD1	NOD2	RAG1	RORC	SLC11A1	STAT1	STAT3	STAT4	STAT6	TBX21	TICAM1
	4.24	-1.18	-3.23	-1.09	-2.00	-1.82	1.71	-1.18	- 2.06	13.90	- 2.49	1.83
G	TLR1	TLR2	TLR3	TLR4	TLR5	TLR6	TLR7	TLR8	TLR9	TNF	TRAF6	TYK2
	-1.82	2.69	- 2.36	- 2.05	-1.47	- 2.16	-1.93	-1.47	-1.02	2.33	1.23	3.19

S. Fig. 2 Heat Map description table. Gene names and values as log2 fold change in comparison to the control are reported for all genes showed in the Heat Map (Figure 4A). Empty box in terms of values correspond to undetermined samples.