

## Supplemental Information

### Anti-oxidative and immune regulatory responses of THP1 and PBMC to pulsed EMF are field-strength dependent

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Primer sequences used for RT-PCR are given in Table S1.

**Table S1.** Primer used for RT-PCR.

Target <sup>1</sup>	Forward primer (5' – 3')	Reverse primer (5' – 3')
<i>Prime targets</i>		
<i>APOE</i>	GTTGCTGGTCACATTCCTGG	GCAGGTAATCCCAAAGCGAC
<i>PRDX6</i>	GTGACAGCTCGTGTGGTGTT	CTGGGGTGGCAACCTTTT
<i>DHCR24</i>	CACTGTCTCACTACGTGTCGG	CCAGCCAATGGAGGTCAGC
<i>BIRC5</i>	AGGACCACCGCATCTCTACAT	AAGTCTGGCTCGTTCTCAGTG
<i>IL18</i>	TCTTCATTGACCAAGGAAATCGG	TCCGGGGTGCATTATCTCTAC
<i>EGR1</i>	GGTCAGTGGCCTAGTGAGC	GTGCCGCTGAGTAAATGGGA
<i>Additional targets</i>		
<i>SOD1</i>	GGTGGGCCAAAGGATGAAGAG	CCACAAGCCAAACGACTTCC
<i>SOD2</i>	GGAAGCCATCAAACGTGACTT	CCCGTTCCTTATTGAAACCAAGC
<i>GPX1</i>	TGGGCATCAGGAGAACGCCA	GGGGTCGGTCATAAGCGCG
<i>CAT</i>	TGGAGCTGGTAACCCAGTAGG	CCTTTGCCTTGGAGTATTTGGTA
<i>HSP70</i>	GCCGAGAAGGACGAGTTTGA	TCCGCTGATGATGGGGTTAC
<i>Casp3</i>	CATGGAAGCGAATCAATGGACT	CTGTACCAGACCGAGATGTCA
<i>IL1B</i>	TGAGCTCGCCAGTGAAATGAT	TCCATGGCCACAACAACCTGA
<i>IL8</i>	GAATGGGTTTGTAGAAATGTGATA	CAGACTAGGGTTGCCAGATTTAAC
<i>IL10</i>	AATAAGGTTTCTCAAGGGGCT	AGAACCAAGACCCAGACATCAA

<sup>1</sup> All primer were purchased from Microsynth (Balgach, Switzerland).

Data obtained from PrimePCRs on deregulation of anti-oxidative and immune regulatory enzymes/targets is given in Table S 1 and S 2, respectively.

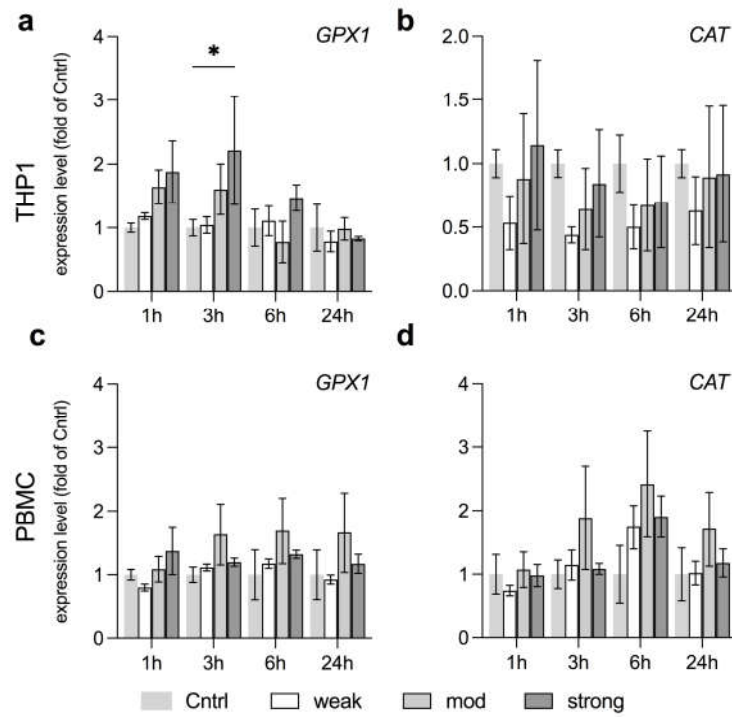
**Table S2.** Anti-oxidative PrimePCR targets with more than 4-fold deregulation in THP1 and PBMC.

<b>Target</b>	<b>THP1 (fold change)</b>	<b>PBMC (fold change)</b>
<i>APOE</i>	133.28	8.99
<i>DHCR24</i>	13.31	8.69
<i>CYBB</i>	10.68	
<i>LPO</i>	7.99	
<i>NCF1</i>	7.69	7.96
<i>GPX5</i>	7.25	
<i>GCLM</i>	6.70	
<i>PTGS2</i>	6.49	
<i>GPX1</i>	6.37	5.52
<i>GPX7</i>	6.02	
<i>PRDX6</i>	5.55	973.99
<i>FOXO1</i>	4.98	
<i>GSS</i>	4.40	47.13
<i>GPX3</i>	-5.80	
<i>RNF7</i>		132.28
<i>OXR1</i>		62.75
<i>SQSTM1</i>		19.86
<i>CYGB</i>		15.7
<i>MBL2</i>		11.13
<i>NOX5</i>		10.53
<i>HMOX1</i>		9.96
<i>OXSR1</i>		6.09

**Table S3.** Immune regulatory PrimePCR targets with more than 4-fold deregulation in THP1 and PBMC.

<b>Target</b>	<b>THP1 (fold change)</b>	<b>PBMC (fold change)</b>
<i>BIRC5</i>	23.48	7.64
<i>EGR1</i>	7.97	
<i>CRP</i>	6.98	
<i>PTGS2</i>	6.52	
<i>COL1A1</i>	5.20	
<i>CTGF</i>	4.56	
<i>NDFIP2</i>	4.47	
<i>KRAS</i>	4.28	
<i>MMP9</i>	-4.62	
<i>VCAM1</i>	-4.98	
<i>CCL2</i>	-5.19	
<i>CXCL12</i>	-21.99	
<i>IL18</i>		162.74
<i>HLA-DRB1</i>		15.53
<i>IL10</i>		15.53
<i>MAPK3</i>		10.98
<i>NFKBIA</i>		8.75
<i>IL4</i>		7.69
<i>TLR4</i>		7.03
<i>UBB</i>		4.83
<i>RELA</i>		4.18
<i>COL1A1</i>		4.09

## Supplemental Figures



**Figure S1:** Expression levels of *GPX1* and *CAT* in THP1 (a, b) and PBMC (c, d) at different field strengths. *GPX1* levels increased in THP1 after 3 h of exposure to stEMF. No difference was found for *GPX1* in PBMC or *CAT* levels in both cell types. Data are given as fold of Cntrl (mean  $\pm$  SEM, N = 3, n = 2). \*  $p < 0.05$  as indicated.