

Supplementary Material

**Inflammatory Pathway Genes belong to Major Targets of Persistent Organic Pollutants
in Adipose Cells**

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Supplementary Material, Table 1: Gene regulation by pollutants in undifferentiated hMADS cells

Gene	DMSO	TCDD	PCB126	PCB153
<i>AhR</i>	1.00 (0.05)	0.61 (0.01)*	0.63 (0.03)*	1.06 (0.05)
<i>CYP1B1</i>	0.99 (0.07)	7.29 (0.54)*	5.55 (0.40)*	0.94 (0.06)
<i>CYP19A1</i>	1.08 (0.13)	3.40 (0.39)*	2.22 (0.45)*	1.80 (0.14)*
<i>NPTX1</i>	1.06 (0.10)	24.56 (2.13)*	26.27 (2.17)*	0.69 (0.11)
<i>NQO1</i>	1.01 (0.08)	1.61 (0.16)*	1.33 (0.10)*	0.91 (0.05)
<i>PAI2</i>	1.03 (0.11)	24.41 (2.85)*	13.69 (1.37)*	1.26 (0.17)
<i>FABP4</i>	1.10 (0.20)	0.20 (0.04)*	0.40 (0.05)*	0.49 (0.12)*
<i>IGFBP3</i>	1.00 (0.03)	1.63 (0.09)*	1.70 (0.07)*	0.79 (0.07)*
<i>STAT1</i>	1.01 (0.05)	1.91 (0.197)*	1.69 (0.08)*	0.88 (0.03)
<i>TGFβi</i>	1.01 (0.05)	1.39 (0.05)*	1.26 (0.06)*	1.00 (0.05)
<i>TSP1</i>	1.01 (0.06)	1.39 (0.08)*	1.34 (0.05)*	0.80 (0.05)
<i>Tnfrs11b</i>	1.03 (0.11)	3.19 (0.27)*	3.11 (0.18)*	1.69 (0.06)*
<i>Trib3</i>	1.09 (0.11)	0.43 (0.06)*	0.76 (0.06)*	1.37 (0.07)
<i>ICAM1</i>	1.01 (0.07)	1.36 (0.03)*	1.35 (0.08)*	1.52 (0.16)*
<i>VCAM1</i>	1.00 (0.03)	0.59 (0.04)*	0.64 (0.04)*	0.70 (0.05)*
<i>Wnt5a</i>	1.01 (0.05)	2.31 (0.13)*	1.80 (0.09)*	0.79 (0.04)*
<i>CXCL12</i>	1.01 (0.08)	1.08 (0.04)	1.01 (0.04)	0.55 (0.01)*
<i>IL1β</i>	1.18 (0.11)	7.52 (0.52)*	5.99 (0.44)*	0.6 (0.06)*
<i>IL8</i>	1.25 (0.12)	7.95 (1.26)*	4.23 (0.38)*	1.24 (0.16)
<i>PTGS2</i>	1.01 (0.07)	3.92 (0.57)*	3.78 (0.39)*	1.49 (0.27)

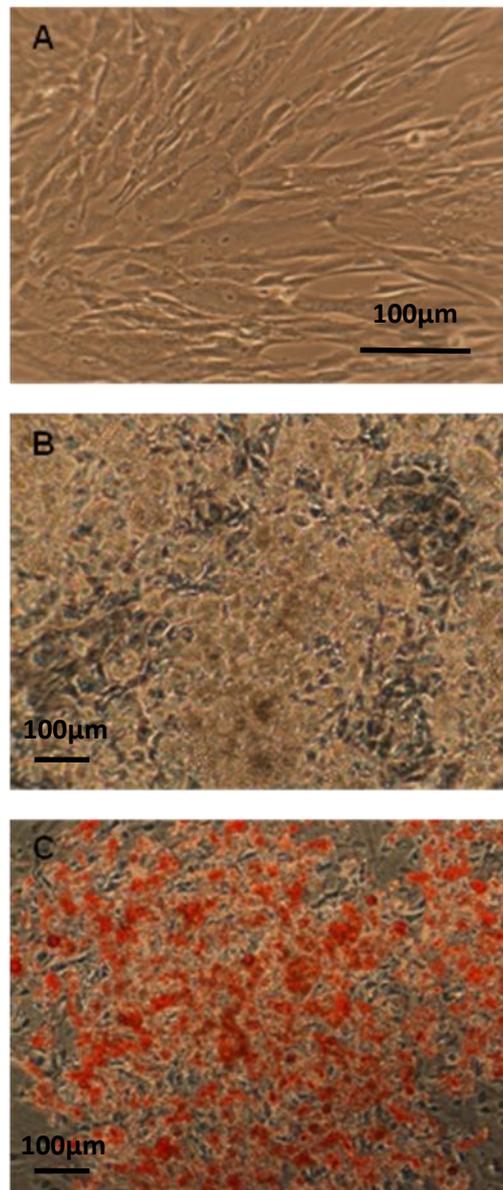
The regulation of genes in precursors by DMSO, 25nM TCDD, 1μM PCB126 or 10μM PCB153 for 48h was assessed by qRT-PCR using the $\Delta\Delta C_t$ method by reporting C_t of target gene of each treated cells to mean C_t of DMSO-treated cells and by using HPRT as reference gene for precursors. The fold induction is expressed as mean (SEM). For each gene, data were statistically compared by Kruskal Wallis test and if significant differences were found Mann-Whitney U test was applied between TCDD-, PCB126-, PCB153-treated cells vs DMSO cells

*: $p < 0.05$

Supplementary Material, Table 2: Gene regulation by pollutants in differentiated hMADS cells

Gene	DMSO	TCDD	PCB126	PCB153
<i>AhR</i>	1.02 (0.12)	0.77 (0.04)	0.73 (0.05)	0.91 (0.05)
<i>CYP1B1</i>	1.09 (0.12)	5.33 (0.29)*	6.44 (0.34)*	0.95 (0.12)
<i>CYP19A1</i>	1.01 (0.06)	0.86 (0.14)	0.87 (0.01)	0.61 (0.06)*
<i>NPTX1</i>	1.04 (0.05)	9.34 (1.63)*	11.23 (0.95)*	0.88 (0.05)
<i>NQO1</i>	1.00 (0.05)	1.14 (0.08)	1.39 (0.14)*	0.89 (0.04)
<i>PAI2</i>	1.06 (0.09)	5.96 (0.52)*	5.36 (0.24)*	0.92 (0.07)
<i>FABP4</i>	1.00 (0.05)	0.92 (0.03)	1.06 (0.13)	1.05 (0.08)
<i>IGFBP3</i>	1.09 (0.26)	1.28 (0.13)	1.50 (0.16)	0.99 (0.09)
<i>STAT1</i>	0.99 (0.09)	1.54 (0.15)*	1.61 (0.08)*	1.10 (0.04)
<i>TGFβi</i>	1.02 (0.12)	2.87 (0.51)*	3.36 (0.37)*	1.09 (0.07)
<i>TSP1</i>	1.03 (0.13)	1.51 (0.17)	1.66 (0.10)*	1.00 (0.08)
<i>TNFRS11b</i>	1.04 (0.17)	2.61 (0.32)*	2.97 (0.27)*	0.96 (0.06)
<i>TRIB3</i>	1.05 (0.21)	0.80 (0.09)	0.79 (0.11)	1.05 (0.18)
<i>ICAM1</i>	1.03 (0.09)	1.41 (0.21)	1.11 (0.06)	1.11 (0.08)
<i>Vcam1</i>	1.05 (0.18)	0.80 (0.09)	0.76 (0.10)	1.14 (0.10)
<i>Wnt5a</i>	1.03 (0.13)	1.56 (0.12)*	1.75 (0.14)*	1.06 (0.03)
<i>CXCL12</i>	1.07 (0.21)	1.34 (0.19)	1.25 (0.14)	1.09 (0.16)
<i>IL1β</i>	1.08 (0.09)	1.00 (0.08)	1.03 (0.07)	0.98 (0.08)
<i>IL8</i>	1.06 (0.09)	2.47 (0.23)*	2.65 (0.16)*	0.90 (0.08)
<i>PTGS2</i>	1.02 (0.09)	2.52 (0.26)*	2.27 (0.11)*	0.99 (0.02)

The regulation of genes in adipocytes by DMSO, 25nM TCDD, 1μM PCB126 or 10μM PCB153 for 48h was assessed by qRT-PCR using the $\Delta\Delta C_t$ method by reporting C_t of target gene of each treated cells to mean C_t of DMSO-treated cells and by using TBP as reference gene for adipocytes. The fold induction is expressed as mean (SEM). For each gene, data were statistically compared by Kruskal Wallis test and if significant differences were found Mann-Whitney U test was applied between TCDD-, PCB126-, PCB153-treated cells vs DMSO-treated cells *: $p < 0.05$



Supplementary Material, Figure 1: In vitro culture of hMADS cells

A: hMADS cells in proliferation medium; B: hMADS cells exhibited intracellular refringent vacuoles representing triglyceride droplets after 10 days in differentiation medium; C: the presence of triglycerides was assessed by Oil Red O staining