

Table (S1): Sequence of the used primers

Gene	Forward	Reverse
CYP2B	AGGAGTGTGGTGTGGGCAAA	CTACAGAGGCGGGGACACTG
CCO	CTCCAAGCGCCCGAGAAGTA	CCATGGCGGAAGTGGGAGAT
CRTC3	CTGAGCACCAAACCCAGGA	GGGGAAGGCGGCCATGTAT
CREB	CCAGGGGTGCCAAGGATTGA	GCTCCTCCCTGGGTAATGGC
BDNF	CCCCGCACACTCTGTGTAGT	GCAGCCTTCATGCAACCGAA
β-actin	CCCAGCCATGTACGTAGCCA	CCGTCTCCGGAGTCCATCAC

CYP2B: cytochrome P450 2B, CCO: cytochrome c oxidase, CRTC3: CREB-regulated transcriptional coactivator 3, CREB: cAMP response element-binding protein, BDNF: and brain derived neurotrophic factor.

Table (S2): Median and interquartile range of the detected genes in the studied groups

Group	Parameter	Gene	Median	Interquartile range
Normal control		CYP1A1	0.8984	0.98
		CCO	1.1549	0.55
		CRTC3	1.1208	1.35
		CREB	1.5540	1.15
		BDNF	1.1208	1.35
LPS		CYP1A1	0.0001 ^a	0.00
		CCO	0.0002 ^a	0.00
		CRTC3	0.0014 ^a	0.01
		CREB	0.0010 ^a	0.00
		BDNF	0.0014 ^a	0.01
CQDs		CYP1A1	0.0007 ^a	0.00
		CCO	0.0013 ^a	0.00
		CRTC3	0.0058 ^a	0.01
		CREB	0.0031 ^a	0.01
		BDNF	0.0058 ^a	0.01
Early free VRH		CYP1A1	0.3234 ^{b, c}	0.36
		CCO	0.0063 ^a	0.01
		CRTC3	0.1070 ^{b, c}	0.17
		CREB	0.0801 ^{a, b}	0.11
		BDNF	0.1070 ^{a, b, c}	0.17
Late free VRH		CYP1A1	0.0229 ^a	0.04
		CCO	0.0020 ^a	0.01
		CRTC3	0.0389 ^a	0.08
		CREB	0.0657 ^{a, b}	0.10
		BDNF	0.0389 ^a	0.08
Early VCQDs		CYP1A1	0.8017 ^{b, c, e}	0.92
		CCO	0.5822 ^{b, c, d, e}	1.80
		CRTC3	0.2640 ^{b, c, e}	0.50
		CREB	0.7649 ^{b, c, d, e}	1.24
		BDNF	0.2640 ^{b, c, e}	0.50
Late VCQDs		CYP1A1	0.1949 ^{b, c}	0.39
		CCO	0.0636 ^{b, c, e}	0.10
		CRTC3	0.1667 ^{b, c}	0.24
		CREB	0.2831 ^{b, c}	0.64
		BDNF	0.1667 ^{b, c}	0.24

Kruskal-Wallis test followed by Dunn's test between groups. n = 6, $P < 0.05$. a: significant vs. normal control, b: significant vs. LPS, c: significant vs. CQDs, d: significant vs. early FVRP, e: significant vs. late FVRP, f: significant vs. early VCQDs. LPS: lipopolysaccharides, CQDs: hyaluronic acid caron quantum dots, FVRH: free verapamil, VCQDs: verapamil-loaded CQDs, CYP1A1: cytochrome P1A1, CCO: cytochrome c oxidase, CRTC3: CREB-regulated transcriptional coactivator 3, CREB: cAMP response element-binding protein, BDNF: brain-derived neurotrophic factor.