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Supplemental Material

***In Vitro* Effects of Lead on Gene Expression in Neural Stem Cells and Associations between Upregulated Genes and Cognitive Scores in Children**

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Table of Contents

Table S1. Primers Used in Study

Table S2. Characteristics of the ELEMENT cohort

Figure S1. Histone H3 ChIP followed by PCR amplification of the putative SPP1 ARE. NRF2 was activated by KEAP1 knockdown (H3 si). NT-siRNA was transfected into control cells (H3 NT). Following H3 ChIP, qPCR was done to measure the presence of the SPP1 ARE.

Additional File

Supplemental Code and Data ZIP File

Excel File Table S1. Full results from the differential expression analysis

Table S1. Primers Used in Study

Target	Application	Forward	Reverse
DIO3OS	QPCR	GCTACAGGCTTCAGCAGGTC	CCCCAGACAGCAGAGAAATC
F2RL2	QPCR	GCAAAGCCAACCTTACCCATT	GAGGTAGATGGCAGGTATCAGT
FTL	QPCR	CAGCCTGGTCAATTTGTACCT	GCCAATTCGCGGAAGAAGTG
HMOX1	QPCR	GGCAGAGGGTGATAGAAGAGG	AGCTCCTGCAACTCCTCAAA
LUCAT1	QPCR	CGATCTCGGTTCACTGCAA	AGCAAACAGCAAGTTGGATTC
NQO1	QPCR	GAAGAGCACTGATCGTACTGGC	GGATACTGAAAGTTCGCAGGG
OSGIN1	QPCR	CGAGGGTGTGCGAGAAGGTG	TCCACGTCAATGGGGTTCCT
SPP1	QPCR	GGAGTTGAATGGTGCATACAAGG	CCACGGCTGTCCCAATCAG
KEAP1	QPCR	CTGGAGGATCATACCAAGCAGG	GGATACCCTCAATGGACACCAC
NRF2	QPCR	TCCAGTCAGAAACCAGTGGAT	GAATGTCTGCGCCAAAAGCTG
SPP1-a	QPCR	ATCTCCTAGCCCCACAGAAT	CATCAGACTGGTGAGAATCAT
SPP1-b	QPCR	ATCTCCTAGCCCCAGAGAC	AAAATCAGTGACCAGTTCATCAG
SPP1-c	QPCR	TGAGGAAAAGCAGAATGCTG	GTCAATGGAGTCCTGGCTGT
NQO1 ARE	ChIP-QPCR	CCCTTTTAGCCTTGGCACGAAA	TGCACCCAGGGAAGTGTGTGTAT
SPP1 ARE	ChIP-QPCR	ATAGGTAGGCTGGGCGATTT	GTGGTTCTGAATTCGCTGT
GAPDH	QPCR	GGAAACTGTGGCGTGATG	AGTGAGCTTCCCGTTCAG

Table S2. Characteristics of the ELEMENT cohort

Trait	Cohort
Number of participants	462
Sex (male/female)	245/217
Mean gestational age in weeks (sd)	38.38 (1.65)
Mean maternal age in years at birth (sd)	27.81 (5.51)
Percentage of mothers married	80.3%
Percentage of children with siblings	53.0%
Percentage of mothers who completed high school education	58.4%
Mean second trimester maternal blood Pb level in ug/dL (sd)	3.76 (2.62)
Mean Raw Cognitive Development Index at ~24 months (sd)	92.48 (8.33)
Mean Raw Language Development Index at ~24 months (sd)	89.76 (9.08)
Mean Raw Psychomotor Development Index at ~24 months (sd)	93.95 (10.58)

Figure S1. Histone H3 ChIP followed by PCR amplification of the putative SPP1 ARE. NRF2 was activated by KEAP1 knockdown (H3 si). NT-siRNA was transfected into control cells (H3 NT). Following H3 ChIP, qPCR was done to measure the presence of the SPP1 ARE.

