Supporting Information

Placental levels of essential and non-essential trace element in relation to birth weight in north-western Spain. Application of generalized additive models

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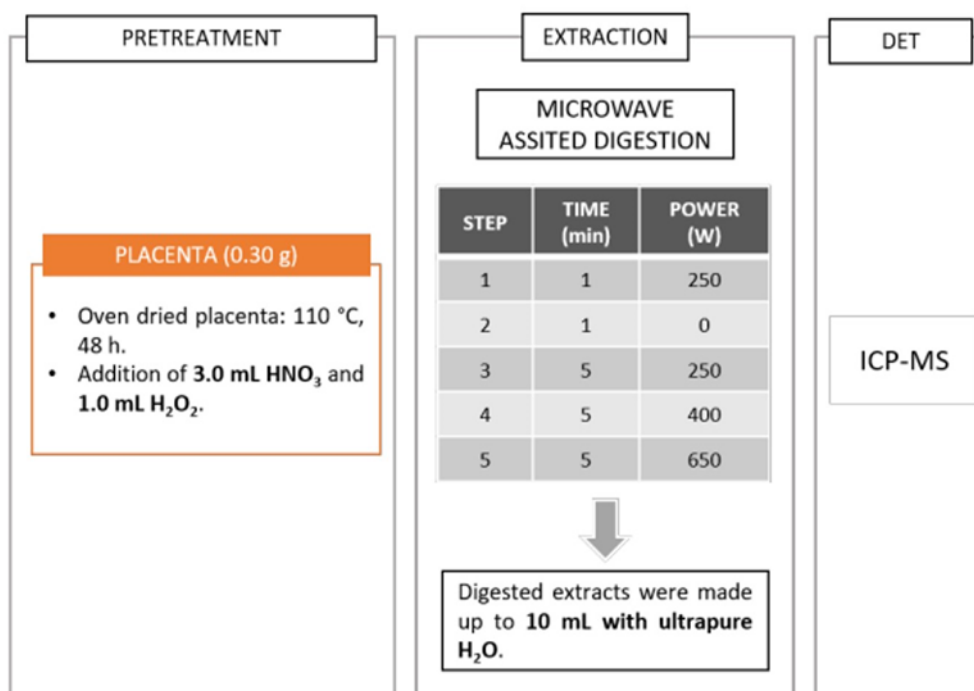
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Table S1: List of essential and nonessential trace elements analyzed in the study.

Chemical symbol	Element
^{75}As	Arsenic
^{111}Cd	Cadmium
^{59}Co	Cobalt
^{65}Cu	Copper
^{202}Hg	Mercury
^{7}Li	Lithium
^{55}Mn	Manganese
^{98}Mo	Molybdenum
^{60}Ni	Niquel
^{208}Pb	Lead
^{85}Rb	Rubidium
^{82}Se	Selenium
^{88}Sr	Strontium
^{66}Zn	Zinc

Table S2: Recoveries of the targeted metals obtained using CRM.

Element	Determined value (mg/kg)	Certified value (mg/kg)	R (%)
DOLT-4			
Ni	0.90 ± 0.08	0.9 ± 0.10	101
Cu	31 ± 0.8	31 ± 1.1	100
Zn	125 ± 0.9	116 ± 6.0	107
As	10 ± 0.20	9.7 ± 0.60	106
Se	9.2 ± 0.40	8.3 ± 1.3	111
Hg	2.6 ± 0.20	2.6 ± 0.20	101
Pb	0.20 ± 0.010	0.20 ± 0.040	105
ERM-BB422			
Cu	1.7 ± 0.10	1.7 ± 0.20	103
Zn	17 ± 0.30	16 ± 1.1	108
As	15 ± 0.50	13 ± 0.70	116
Se	1.5 ± 0.040	1.3 ± 0.10	112
Cd	0.010 ± 0.010	0.010 ± 0.010	109

DOLT-4: Dogfish liver (Supplier: National Research Council, Canada); ERM-BB422: Fish muscle (Supplier: National Research Council, Canada). CRM: Certified reference materials.

Table S3. Detection and quantification limits for the targeted metals and trace elements (µg/g dw)

Element	LOD	LOQ
As	0.016	0.054
Cd	0.0003	0.0009
Co	0.0004	0.0015
Cu	0.0066	0.022
Hg	0.0011	0.0037
Li	0.0007	0.0022
Mn	0.0025	0.0082
Mo	0.0075	0.025
Ni	0.055	0.18
Pb	0.0003	0.0009
Rb	0.0003	0.0009
Se	0.0014	0.0046
Sr	0.0024	0.0081
Zn	0.045	0.15

LOD: Limits of detection; LOQ: Limits of quantification

Figures

Fig. Suppl 1: Metals and trace elements determination in placenta samples.
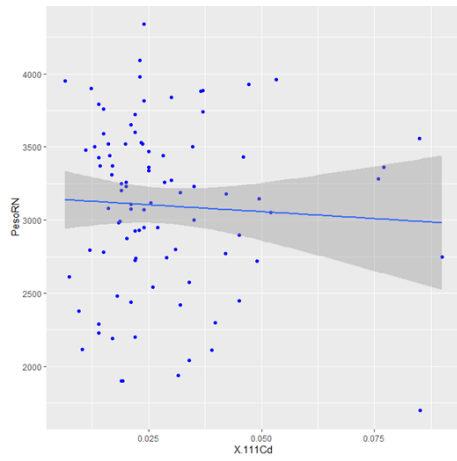
Fig. Suppl 2. GLM models for Cd (p = 0.604)
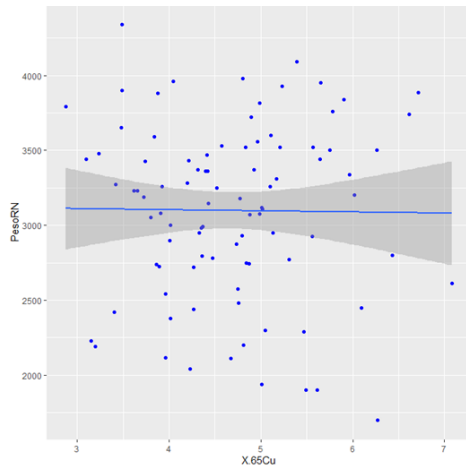

Fig. Suppl 3. GAM models for Cu (p = 0.914)
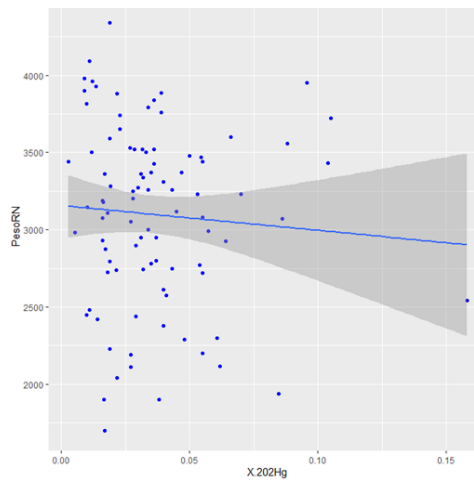

Fig. Suppl 4. GAM models for Hg (p = 0.5)
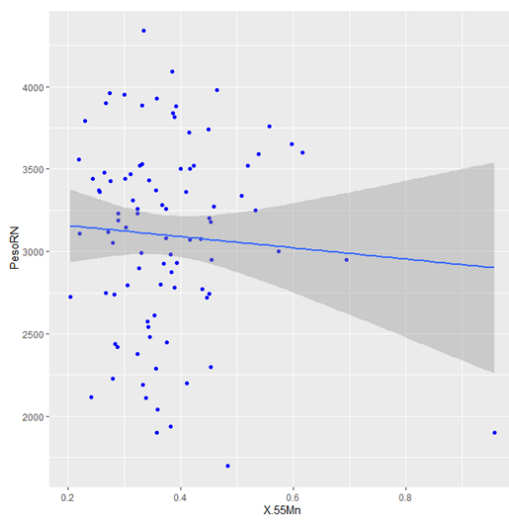
Fig. Suppl 5. GLM models for Hg (p = 0.530)
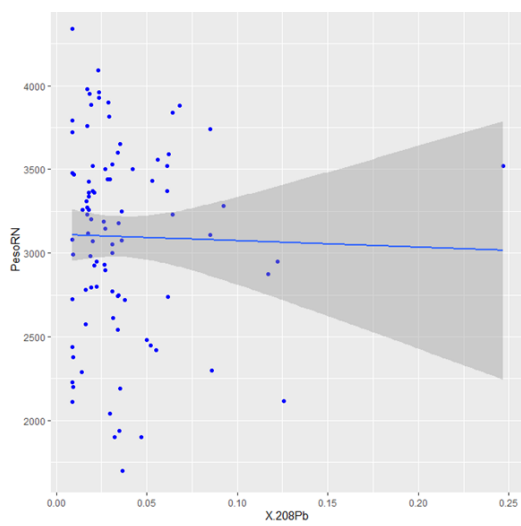

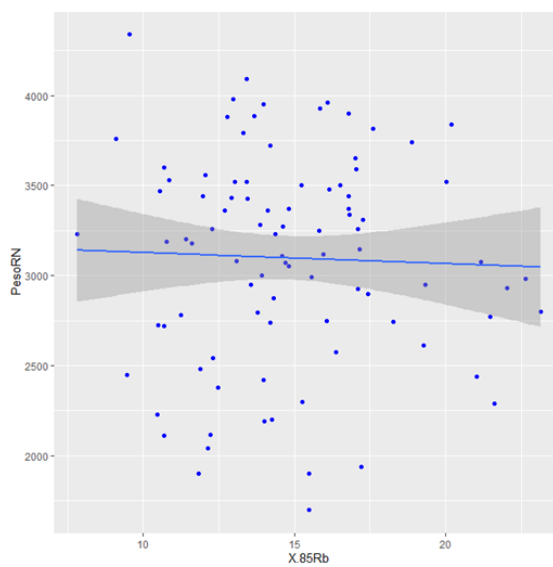Fig. Suppl 6. GLM models for Pb (p = 0.505)

Fig. Suppl 7. GLM models for Rb (p = 0.746)

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