**APPENDIX / SUPPLEMENTARY TABLES**

Supplemental Table 1. Summary of whole blood and urine elemental biomarker quality control measures. The limit of detection (values reported as µg/L) was calculated as the mean value of several blank samples plus 3x the standard deviation of the mean. Accuracy (closeness to actual value) and precision (reproducibility) of each element was determined by use of certified blood reference materials (numbers 1314, 1505, 1506) and urine reference material (1109) obtained from the Institut National de Santé Publique du Québec (INSPQ).

Table S1: Summary of elemental biomarker quality control measures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Biomarker | Element | Detection Limit (ug/L) | Precision | Accuracy |
| Blood heavy metals | Cd | 0.3 | 21% | 119% |
| Pb | 7.1 | 6% | 103% |
| Urinary Elements | Cd | 0.3 | 22% | 116% |
| Pb | 3.7 | 8% | 100% |
| As | 1.4 | 6% | 100% |

Table S2: Association between LINE1 methylation and levels of Cd, Pb, and As in blood and urine.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **LINE1 methylation** | | | | | | |
| **Predictors** | **Total** | | **e-waste workers** | | **Controls** | |
|  | **β(95%CI)** | **p-value** | **β(95%CI)** | **p-value** | **β(95%CI)** | **p-value** |
| Blood Cd | 0.027(-0.378, 0.431) | 0.897 | -0.091(-0.757, 0.575) | 0.787 | 0.013(-0.544, 0.571) | 0.962 |
| Urine Cd | -0.088(-0.303, 0.128) | 0.422 | -0.054(-0.291, 0.184) | 0.655 | -0.502(-1.520, 0 .516) | 0.325 |
| Blood Pb | -0.004(-0.008, -0.0003) | **0.034** | -0.003(-0.007, 0.001) | 0.191 | -0.025(-0.041, -0.008) | **0.004** |
| Urine Pb | -0.007(-0.051, 0.038) | 0.768 | 0.015(-0.045, 0.074) | 0.629 | -0.034(-0.112, 0.045) | 0.388 |
| Urine As | -0.003(-0.006, 0.001) | 0.105 | -0.003(-0.007, 0.002) | 0.288 | -0.003(-0.009, 0.002) | 0.236 |
| All models are adjusted for age, BMI, smoking status, alcohol intake (in total population and stratified by e-waste exposure). Bolden p-values are statistically significant | | | | | | |