SUPPLEMENTARY MATERIAL

Metal dyshomeostasis based biomarkers of lung cancer using human biofluids

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Supplementary Figure 1. PLS-DA of A) urine and B) BALF samples. Red triangles: cancer group, black triangles: healthy control group, green triangles: non-cancerous control group.



Supplementary Figure 2. Loading plot from serum samples in LC vs HC comparison.



Supplementary Figure 3. Loading plot from LMM of serum samples in LC vs HC comparison.



Supplementary Figure 4. Loading plot from BALF samples in LC vs NCC comparison.



Supplementary Figure 5. Loading plot from urine samples in LC vs HC comparison.



Supplementary Figure 6. A) Loadings plot for comparison of inter-element ratios in serum obtained from LC and HC. B) 3D score plot obtained by PLS-DA.



Supplementary Figure 7. A) Loadings plot for comparison of inter-element ratios in urine obtained from LC and HC. B) 3D score plot obtained by PLS-DA.

SERUM (Reference Material) *	Medium Concentration (μg L ⁻¹) n=10	RSD (%)	Certified range (μ g L ⁻¹)
V	8.16	3.94	6.47-9.71
Cr	5.37	3.17	4.53-6.79
Mn	6.04	2.68	4.83-7.24
Fe	1519.3	2.72	1190-1780
Со	5.47	4.42	4.59-6.89
Cu	1359.6	2.34	1150-1560
Zn	1532.8	2.22	1208-1740
Se	117.34	4.10	89.9-135
Мо	5.42	3.38	4.33-6.50
Cd	5.44	2.40	4.04-6.73
Pb	-	-	Non certified

* Clinchek, Serum Control lyophilized for trace elements, level II, Recipe.

Supplementary Table 1. Medium concentration and % RSD of ten replicates of serum reference material.

URINE (Reference Material)*	Medium Concentration (μg L-1) n=10	RSD (%)	Certified range (μ g L-1)
V	53.69	3.03	40.7-61
Cr	20.36	4.25	15.9-23.9
Mn	18.59	3.79	15.9-23.9
Fe	240.1	3.97	178-266
Со	32.51	4.36	27.5-41.2
Cu	96.64	4.25	88.7-133
Zn	542.4	4.18	425-638
Se	92.61	4.06	71.4-107
Мо	90.22	2.92	79.5-119
Cd	15.33	2.02	11.4-17.2
Pb	55.17	3.27	43.5-65.2

* Clinchek, Urine Control lyophilized for trace elements, level II, Recipe.

Supplementary Table 2. Medium concentration and % RSD of ten replicates of urine reference material.