# Supplementary Materials: Polyamine Metabolites Profiling for Characterization of Lung and Liver Cancer Using an LC-Tandem MS Method with Multiple Statistical Data Mining Strategies: Discovering Potential Cancer Biomarkers in Human Plasma and Urine

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**Table S1**. Amounts of polyamine metabolome in plasma (ng/mL) from 50 lung, 50 liver cancer patients and heathy volunteers (mean ± SD).

| Analytes | Lung Cancer Patients | Liver Cancer Patients | Heathy Volunteers |
|---|---|---|---|
| DAP | 3.74 ± 2.26 | 5.79 ± 4.54 | 5.55 ± 4.99 |
| PUT | 35.65 ± 16.41 * | 77.11 ± 37.14 * | 20.35 ± 14.50 |
| CAD | 2.58 ± 2.03 ** | 3.09 ± 2.43 ** | 21.42 ± 17.49 |
| SPD | 5.55 ± 6.79 * | 46.24 ± 30.84 ** | 2.85 ± 2.26 |
| SPM | 6.78 ± 3.87 | 14.24 ± 10.73 | 12.61 ± 12.02 |
| AGM | 71.79 ± 21.97 * | 67.08 ± 46.67 * | 96.3 ± 54.2 |
| ORN | 6374 ± 2429 * | $9.85 \times 10^3 \pm 5.69 \times 10^3$ | $9.98 \times 10^3 \pm 10.57 \times 10^3$ |
| LYS | $1.440 \times 10^5 \pm 0.613 \times 10^5$ * | $1.411 \times 10^5 \pm 0.789 \times 10^5$ * | $0.725 \times 10^5 \pm 0.865 \times 10^5$ |
| ARG | $1.042 \times 10^5 \pm 0.468 \times 10^5$ ** | $1.005 \times 10^5 \pm 0.636 \times 10^5$ ** | $0.232 \times 10^5 \pm 0.262 \times 10^5$ |
| SAM | 159.7 ± 90.1 ** | 131.7 ± 129.0 ** | 51.86 ± 34.75 |
| NPUT | 0.36 ± 0.24 | 0.52 ± 0.49 | 0.42 ± 0.36 |
| NSPM | 3.12 ± 1.32 | 7.40 ± 3.39 * | 4.64 ± 4.85 |
| NSPD | 3.15 ± 0.87 | 6.21 ± 3.78 * | 4.49 ± 5.55 |
| GABA | 74.13 ± 32.86 * | 91.1 ± 70.5 * | 24.14 ± 21.36 |

* $p < 0.05$, compared to heathy volunteers, ** $p < 0.01$, compared to heathy volunteers.

**Table S2.** Amounts of polyamine metabolome in urine (ng/mg creatinine) from 50 lung, 50 liver cancer patients and heathy volunteers (mean ± SD).

| Analytes | Lung Cancer Patients | Liver Cancer Patients | Heathy Volunteers |
|---|---|---|---|
| DAP | 0.98 ± 0.88 * | 1.42 ± 2.09 * | 4.69 ± 3.91 |
| PUT | 19.77 ± 9.13 * | 35.12 ± 44.46 * | 10.95 ± 11.17 |
| CAD | 14.38 ± 16.25 ** | 26.33 ± 28.77 ** | 175.8 ± 194.3 |
| SPD | 8.88 ± 7.87 * | 6.85 ± 8.04 * | 2.46 ± 2.41 |
| SPM | 90.6 ± 97.7 ** | 212.5 ± 264.6 ** | 34.45 ± 40.41 |
| AGM | 5544 ± 466 * | 5396 ± 4099 | 3586 ± 3053 |
| ORN | 202.1 ± 170.8 * | 256.8 ± 305.2 * | 149.0 ± 131.8 |
| LYS | $2.844 \times 10^4 \pm 2.537 \times 10^4$ * | $2.878 \times 10^4 \pm 2.303 \times 10^4$ * | $1.115 \times 10^4 \pm 0.601 \times 10^4$ |
| ARG | 257.7 ± 281.2 ** | 699.2 ± 549.6 ** | 3811 ± 4082 |
| SAM | 2283 ± 2074 ** | 6880 ± 5074 ** | $1.002 \times 10^4 \pm 1.635 \times 10^4$ |
| NPUT | 1.00 ± 1.09 | 0.58 ± 0.80 * | 2.15 ± 1.55 |
| NSPM | 4.44 ± 4.12 * | 1.82 ± 1.74 * | 8.79 ± 8.04 |
| NSPD | 300.1 ± 38.3 ** | 111.6 ± 128.3 | 127.3 ± 121.6 |
| GABA | 16.07 ± 12.00 ** | 22.03 ± 16.57 ** | 169.8 ± 227.9 |

* $p < 0.05$, compared to heathy volunteers, ** $p < 0.01$, compared to heathy volunteers.