

Supplementary Table 4. Concentration of identified urinary metabolites and comparison of non-progressor and progressor groups

Metabolite	Control	Non-progressor group	Progressor group	p-value
2-Hydroxyisobutyrate (mM)	0.087 ± 0.024	0.117 ± 0.031	0.107 ± 0.034	0.35
2-Oxoglutarate (mM)	0.144 ± 0.094	0.187 ± 0.111	0.114 ± 0.095	0.03*
3-Aminoisobutyrate (mM)	0.458 ± 0.480	0.939 ± 1.434	1.451 ± 1.693	0.91
3-Hydroxyisobutyrate (mM)	0.131 ± 0.063	0.132 ± 0.051	0.125 ± 0.040	0.97
3-Hydroxyisovaleric acid (mM)	0.367 ± 0.151	0.362 ± 0.123	0.345 ± 0.136	0.80
4-Hydroxyphenylacetate (mM)	0.207 ± 0.113	0.137 ± 0.075	0.210 ± 0.158	0.35
Acetate (mM)	0.071 ± 0.017	0.059 ± 0.025	0.077 ± 0.025	0.09
Acetoacetate (mM)	0.062 ± 0.032	0.091 ± 0.050	0.083 ± 0.043	0.97
Alanine (mM)	0.518 ± 0.208	0.387 ± 0.182	0.528 ± 0.126	0.04*
Arabinitol (mM)	1.231 ± 0.749	0.914 ± 0.589	1.620 ± 1.325	0.32
Betaine (mM)	2.171 ± 1.254	2.733 ± 1.753	2.884 ± 1.556	0.68
Choline (mM)	0.078 ± 0.025	0.082 ± 0.036	0.126 ± 0.094	0.63
Citrate (mM)	5.372 ± 3.561	3.380 ± 1.822	3.845 ± 2.717	0.58
Creatine (mM)	1.845 ± 2.183	0.706 ± 0.772	0.417 ± 0.675	0.11
Creatine phosphate (mM)	1.330 ± 0.606	0.758 ± 0.265	0.654 ± 0.252	0.39
Creatinine (mM)	13.581 ± 2.763	21.126 ± 5.919	19.875 ± 5.342	0.44
Dimethyl sulfone (mM)	0.158 ± 0.053	0.175 ± 0.065	0.147 ± 0.076	0.22
Dimethylamine (mM)	0.700 ± 0.162	0.973 ± 0.545	0.821 ± 0.218	0.97
Dimethylglycine (mM)	0.029 ± 0.015	0.029 ± 0.015	0.028 ± 0.015	0.68
Formate (mM)	0.507 ± 0.194	0.331 ± 0.157	0.220 ± 0.089	0.12
Gluconate (mM)	0.769 ± 0.126	0.934 ± 0.162	0.874 ± 0.171	0.44
Glucose (mM)	1.765 ± 3.416	0.700 ± 0.350	1.140 ± 0.706	0.11
Glutamine (mM)	0.599 ± 0.228	0.523 ± 0.173	0.562 ± 0.180	0.68
Glycine (mM)	1.267 ± 0.735	0.947 ± 0.387	0.885 ± 0.376	0.53
Guanidoacetate (mM)	1.030 ± 0.472	0.848 ± 0.540	0.548 ± 0.471	0.02*
Hippuric acid (mM)	1.077 ± 0.662	1.013 ± 0.928	0.670 ± 0.726	0.35
Lactate (mM)	0.359 ± 0.127	0.330 ± 0.199	0.347 ± 0.094	0.28
Leucine (mM)	0.052 ± 0.011	0.054 ± 0.008	0.075 ± 0.015	<0.001*
Mannitol (mM)	18.658 ± 14.020	15.858 ± 11.488	50.102 ± 66.163	0.35
Methanol (mM)	0.188 ± 0.058	0.260 ± 0.112	0.236 ± 0.115	0.58
N-Methylhydantoin (mM)	0.233 ± 0.074	0.204 ± 0.060	0.269 ± 0.072	0.03*
N-Phenylacetyl glycine (mM)	1.078 ± 0.619	1.340 ± 0.971	1.125 ± 0.991	0.74
Propylene glycol (mM)	0.355 ± 0.411	0.643 ± 1.512	0.522 ± 0.853	0.44
Pseudouridine (mM)	0.178 ± 0.039	0.254 ± 0.040	0.305 ± 0.064	0.11
Pyroglutamate (mM)	0.301 ± 0.059	0.368 ± 0.109	0.361 ± 0.091	0.80
Pyruvate (mM)	0.036 ± 0.007	0.031 ± 0.015	0.034 ± 0.008	0.80
Succinate (mM)	0.084 ± 0.074	0.034 ± 0.013	0.040 ± 0.019	0.48
Taurine (mM)	3.046 ± 1.289	2.165 ± 1.107	2.640 ± 1.548	0.58
Trigonelline (mM)	0.314 ± 0.175	0.305 ± 0.220	0.184 ± 0.131	0.11
Trimethylamine (mM)	0.025 ± 0.011	0.023 ± 0.007	0.020 ± 0.009	0.28
Trimethylamine N-oxide (mM)	2.069 ± 1.574	3.448 ± 6.119	2.408 ± 2.884	0.68
Tyrosine (mM)	0.192 ± 0.051	0.200 ± 0.049	0.225 ± 0.053	0.25
Valine (mM)	0.069 ± 0.014	0.072 ± 0.029	0.099 ± 0.023	0.02*
Xanthine (mM)	1.383 ± 0.738	1.083 ± 0.308	1.046 ± 0.600	0.44
cis-Aconitate (mM)	0.241 ± 0.042	0.326 ± 0.104	0.279 ± 0.109	0.19
myo-Inositol (mM)	0.358 ± 0.073	0.561 ± 0.261	0.966 ± 0.806	0.68
sn-Glycero-3-phosphocholine (mM)	0.259 ± 0.306	0.456 ± 0.338	0.313 ± 0.298	0.44

Data are expressed as mean ± standard deviation.

The p-values were calculated using Mann-Whitney U test between progressor and non-progressor groups.

*p < 0.05.