Supplementary Table S1: MetaboAnalyst 4.0 analysis of compound name mapping. The data integrity check was performed to ensure that the uploaded compounds meet the basic requirements such as a valid HMDB ID, PubChem number, and KEGG ID for meaningful downstream analysis.

Query	Match	HMDB	PubChem	KEGG
Glucose	D-Glucose	HMDB0000122	5793	C00031
Cholesterol	Cholesterol	HMDB0000067	5997	C00187
Zinc	Zinc	HMDB0015532	32051	C00038
Sodium	Sodium	HMDB0000588	923	C01330