

Supplementary Table 2. A list of metabolites their pre-ATI levels associate with time-to-viral-rebound upon ART cessation

Metabolites Associate with Delayed Viral Rebound		Cox proportional-hazards model					Mantel-Cox Test	
Metabolite	Pathway	HazardRatio (HR)	HR 95% lower confidence limit (LCL)	HR 95% higher confidence limit (HCL)	P value	FDR	P value	FDR
L-glutamic acid	Glutamate metabolism	0.157	0.045	0.555	0.004	0.072	ns	
α-ketoglutaric acid	Glutamate metabolism	0.181	0.052	0.626	0.007	0.089	ns	
Gamma-Aminobutyric acid	Glutamate metabolism	0.190	0.060	0.599	0.005	0.074	0.012	0.181
N-Acetylglutamic acid	Glutamate metabolism	0.355	0.143	0.881	0.026	0.158	0.048	0.296
Ethylmalonic acid	Glutamate metabolism	0.393	0.186	0.829	0.014	0.132	0.002	0.175
Taurochenodeoxycholic acid	Primary bile acid biosynthesis	0.615	0.450	0.839	0.002	0.062	0.007	0.181
Glycoursodeoxycholic acid	Primary bile acid biosynthesis	0.598	0.447	0.800	0.001	0.062	0.004	0.175
Glycocholic acid	Primary bile acid biosynthesis	0.754	0.625	0.909	0.003	0.062	0.025	0.226
D-Glucose	Carbohydrate Metabolsim	0.423	0.186	0.959	0.039	0.196	0.003	0.175
1,5-Anhydro-D-glucitol	Carbohydrate Metabolsim	0.284	0.087	0.928	0.037	0.190	0.009	0.181
Kojic acid	Others	0.206	0.073	0.580	0.003	0.062	0.016	0.189
Malonic acid	Others	0.323	0.117	0.890	0.029	0.173	0.039	0.296
D-Ribono-1,4-lactone	Others	0.202	0.054	0.762	0.018	0.132	0.011	0.181
Metabolites Associate with Faster Viral Rebound								
Pyruvic acid	Pyruvate metabolism	6.793	2.063	22.362	0.002	0.062	0.048	0.296
Glycerol 3-phosphate	Pyruvate metabolism	3.747	1.561	8.992	0.003	0.062	0.048	0.296
L-lactic acid	Pyruvate metabolism	6.096	1.599	23.236	0.008	0.093	ns	
Indole-3-pyruvic acid	Tryptophan metabolism	2.474	1.170	5.230	0.018	0.132	0.031	0.264
Indole-3-lactic acid	Tryptophan metabolism	3.161	1.317	7.583	0.010	0.099	0.009	0.181
3-Indoxyl sulphate	Tryptophan metabolism	2.016	1.189	3.417	0.009	0.097	0.043	0.296
2-Oxindole	Tryptophan metabolism	2.204	1.358	3.578	0.001	0.062	ns	
Trimethylamine N-oxide	Others/Microbiome metabolism	1.488	1.123	1.973	0.006	0.078	0.008	0.181
Taurine	Others/Primary bile acid biosynthesis	4.379	1.561	12.284	0.005	0.075	0.002	0.175
Imidazolelactic acid	Others	2.582	1.403	4.753	0.002	0.062	0.020	0.224
Glycerophospho-N-palmitoyl ethanolamine	Others	2.493	1.265	4.913	0.008	0.093	0.044	0.296
Nicotinamide	Others	1.947	1.303	2.908	0.001	0.062	ns	