

Supplementary Table 1: Bivariate mixed models showing associations between peak oxygen consumption ( $\text{VO}_{2\text{peak}}$ ) and log plasma concentrations of sphingolipids associated with change in cognitive performance over 6 months of cardiac rehabilitation (CR) in patients with coronary artery disease (CAD)

Sphingolipid species	Lipid	Month		<i>b</i>	p-value ( $p \leq 0.05$ )*
		0 (n=120)	3 (n=103)	6 (n=99)	
Sphingomyelin	C16:0	5.81±0.07 <sup>1</sup>	5.82±0.08	5.83±0.07	-0.0004 0.47
	C18:0	5.09±0.10	5.10±0.12	5.11±0.10	-0.003 0.005*
	C18:1	4.69±0.11	4.70±0.11	4.70±0.11	-0.003 <0.001*
	C20:1	4.55±0.11	4.56±0.12	4.56±0.12	-0.002 0.10
	C24:1	5.78±0.10	5.79±0.09	5.80±0.10	0.0004 0.62
Dihydrosphingomyelin	C16:0	4.34±0.15	4.35±0.14	4.38±0.11	-0.001 0.38
	C18:0	5.12±0.09	5.13±0.09	5.14±0.09	0.0002 0.79
	C20:0	5.28±0.11	5.28±0.11	5.30±0.10	-0.0002 0.80
	C22:0	4.40±0.12	4.41±0.12	4.43±0.11	-0.0004 0.67
Ceramide	C16:0	1.28±0.14	1.26±0.15	1.27±0.15	-0.004 0.008*
	C18:0	0.84±0.25	0.82±0.26	0.82±0.26	-0.006 0.005*
	C20:0	1.93±0.21	1.92±0.17	1.93±0.17	-0.002 0.28
	C22:0	2.47±0.25	2.49±0.23	2.51±0.26	-0.002 0.92
	C24:1	1.85±0.43	1.79±0.41	1.79±0.40	-0.01 0.004*
Monohexylceramide	C18:0	0.90±0.20	0.88±0.20	0.90±0.18	-0.004 0.02*
	C26:1	0.34±0.42	0.32±0.53	0.37±0.49	0.007 0.09
Lactosylceramide	C18:1	1.12±0.14	1.11±0.18	1.14±0.18	0.003 0.06
	C24:1	2.14±0.18	2.15±0.18	2.16±0.20	0.002 0.17
Sphingosine	SPH	0.12±0.35	0.12±0.40	0.12±0.33	0.002 0.54
Sphingosine-1-phosphate	S1P	1.13±0.35	1.14±0.34	1.12±0.34	0.003 0.70

<sup>1</sup> values are mean±SD log sphingolipid concentrations