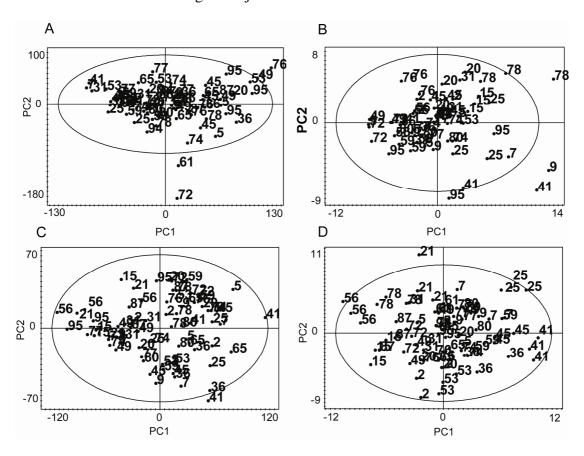
## **Supplementary Materials**

Metabolic effects of dark chocolate consumption on energy, gut microbiota and stress-related metabolism in free-living subjects

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## Supplementary Figure 1: Principal component analysis of biological matrices

PCA scores plots derived from <sup>1</sup>H NMR spectra (**A**) and MS data (**B**) of urine and from <sup>1</sup>H NMR CPMG spectra (**C**) and MS data (**D**) of plasma. Samples are labelled for each individual according to subject ID.



**Supplementary Table 1.** Summary of contrast test statistics to assess metabolic relationships between anxiety trait levels and chocolate consumption in urine and plasma

Metabolites/p-values	Measured by	Biofluids	Contrast (t1-t0) High vs. Low anxiety subjects	Contrast (t2-t0) High vs. Low anxiety subjects
3-Methoxytyrosine	MS	Urine	-	0.02
Acetate	NMR	Plasma	-	0.02
Aconitate	MS	Urine	-	-
Adrenaline	MS	Urine	-	0.01
Choline	NMR	Plasma	-	-
Citrate	NMR	Urine	-	0.06
DOPA	MS	Urine	0.09	-
Glutamate	NMR	Plasma	-	-
Glycine	NMR	Urine	-	0.02
Glycine	MS	Urine	-	0.01
Hippurate	NMR	Urine	-	-
Lycopene	MS	Plasma	-	-
Methylsuccinate	NMR	Urine	-	-
Normetanephrine	MS	Plasma	-	-
p-Cresol sulfate	MS	Urine	-	-
Proline	MS	Urine	-	-
Trimethylamine	NMR	Urine	0.06	-
Trans-Aconitate	NMR	Urine	0.01	0.02
β-alanine	MS	Urine	-	-
β-Carotene	MS	Plasma		

**Key:** - designates difference not significant at 95% and 90% confidence level.