Electronic Supplementary Material (ESI) for Food & Function.

Identification and quantification of (poly)phenol and methylxanthine metabolites in human cerebral spinal fluid: evidence of their ability to cross the BBB.

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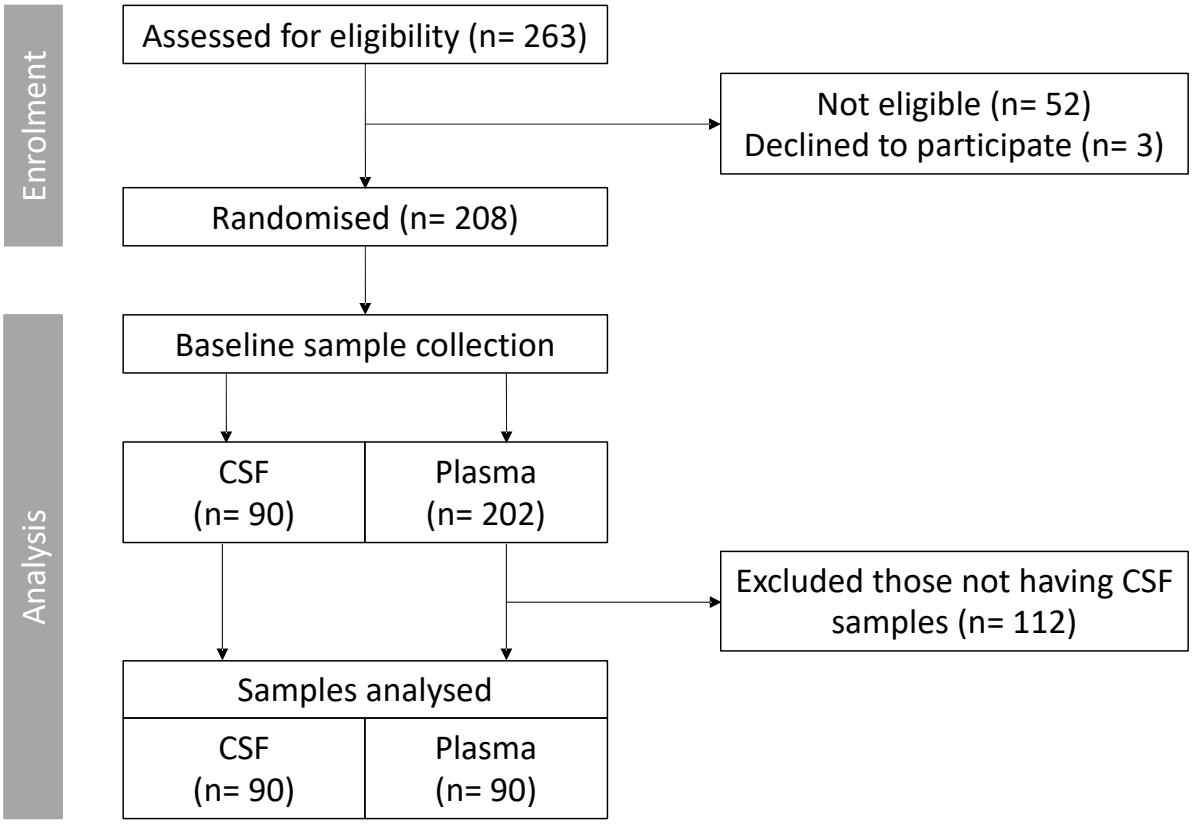
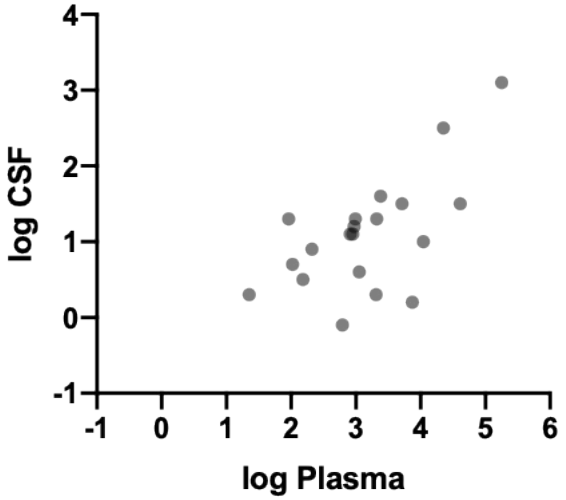
Supplementary Figures

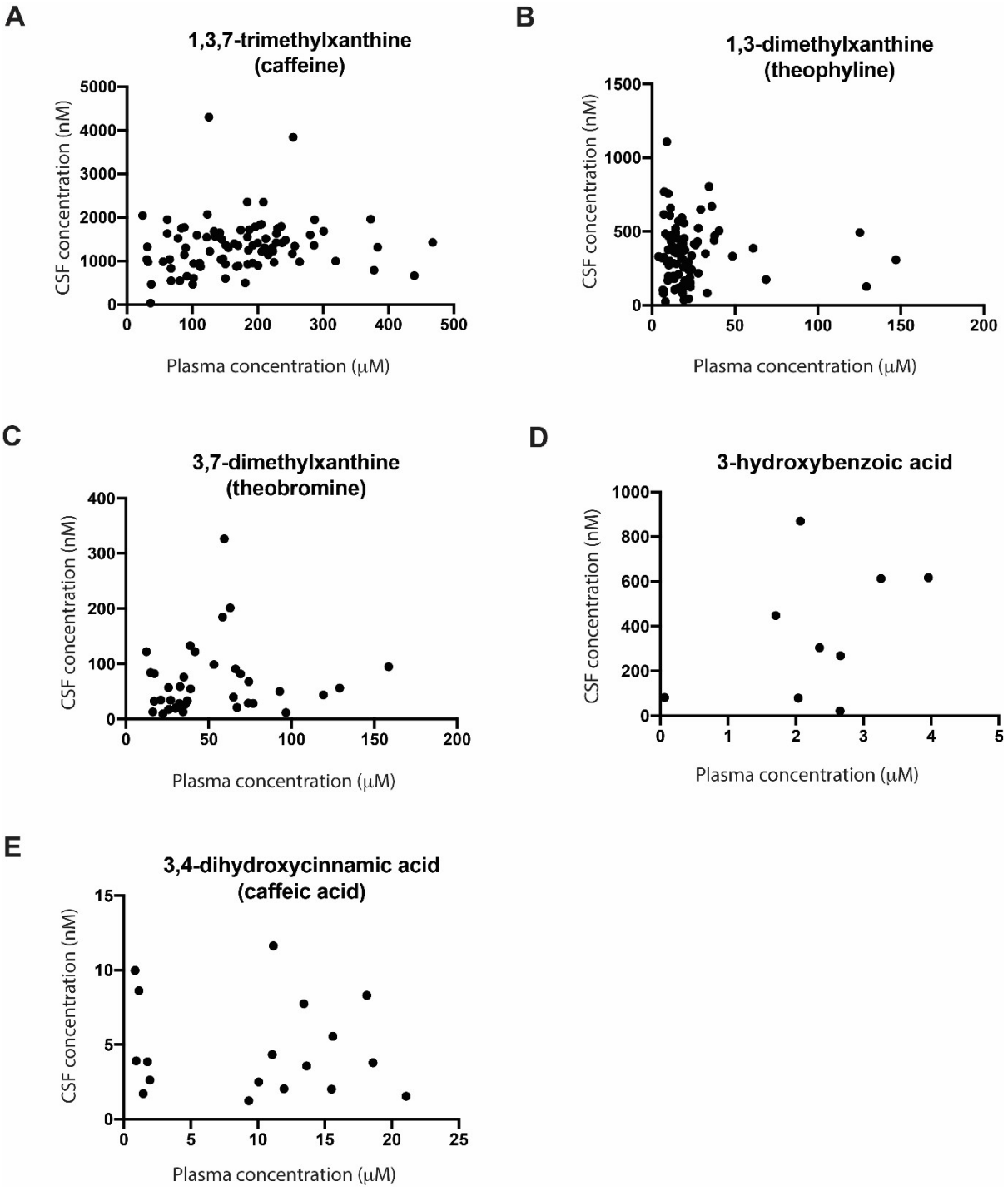
Supplementary Figure S1. Flow Chart study



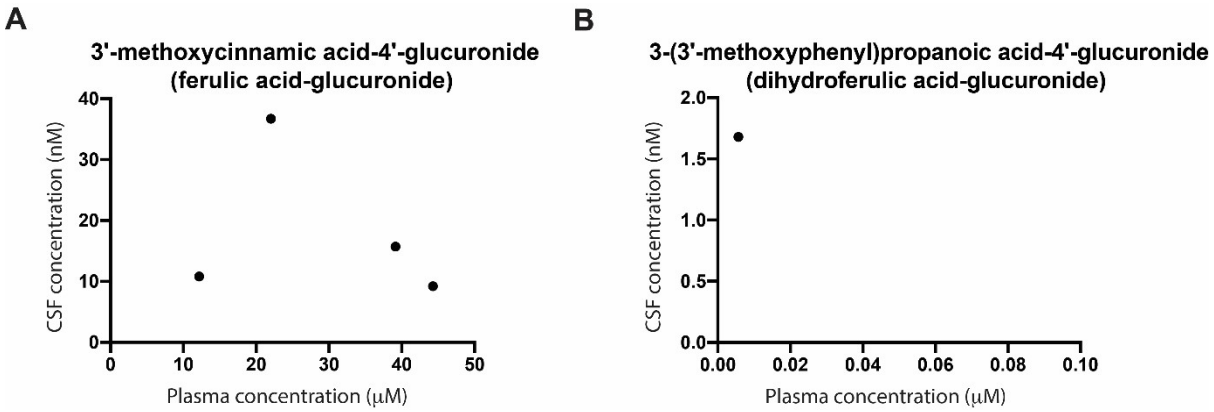
Supplementary Figure S2. Correlation between the concentrations of the 20 metabolites quantified in both CSF and plasma. Pearson correlation coefficient = 0.63, p= 0.003, 95%CI= 0.265-0.840



Supplementary Figure S3. Plasma and CSF concentrations show high degree of variability amongst volunteers for: (A) 1,3,5-trimethylxanthine, (B) 1,3-dimethylxanthine, (C) 3,7-dimethylxanthine, (D) 3-hydroxybenzoic acid, (E) 3′,4′-dihydroxycinnamic acid.



Supplementary Figure S4. Plasma and CSF concentrations for the molecules detected on a small number of volunteers. (A) 3′-methoxycinnamic acid-4′-glucuronide, (B) 3-(3′-methoxyphenyl)propanoic acid-4′-glucuronide.



Supplementary Figure S5. Plasma and CSF concentrations of the molecules that may show some saturation. These molecules showed a coefficient of variation below 10% for CSF concentrations yet have low plasma concentrations. For these reason further studies might be required to fully confirm saturation of CSF concentrations. (A) quercetin-glucuronide, (B) 4-O-feruoylquinic acid, (C) 7,8-dihydrocoumarin, (D) (–)-epicatechin.