The effect of caffeine on cognitive performance is influenced by CYP1A2 but not ADORA2A genotype, yet neither genotype affects exercise performance in healthy adults

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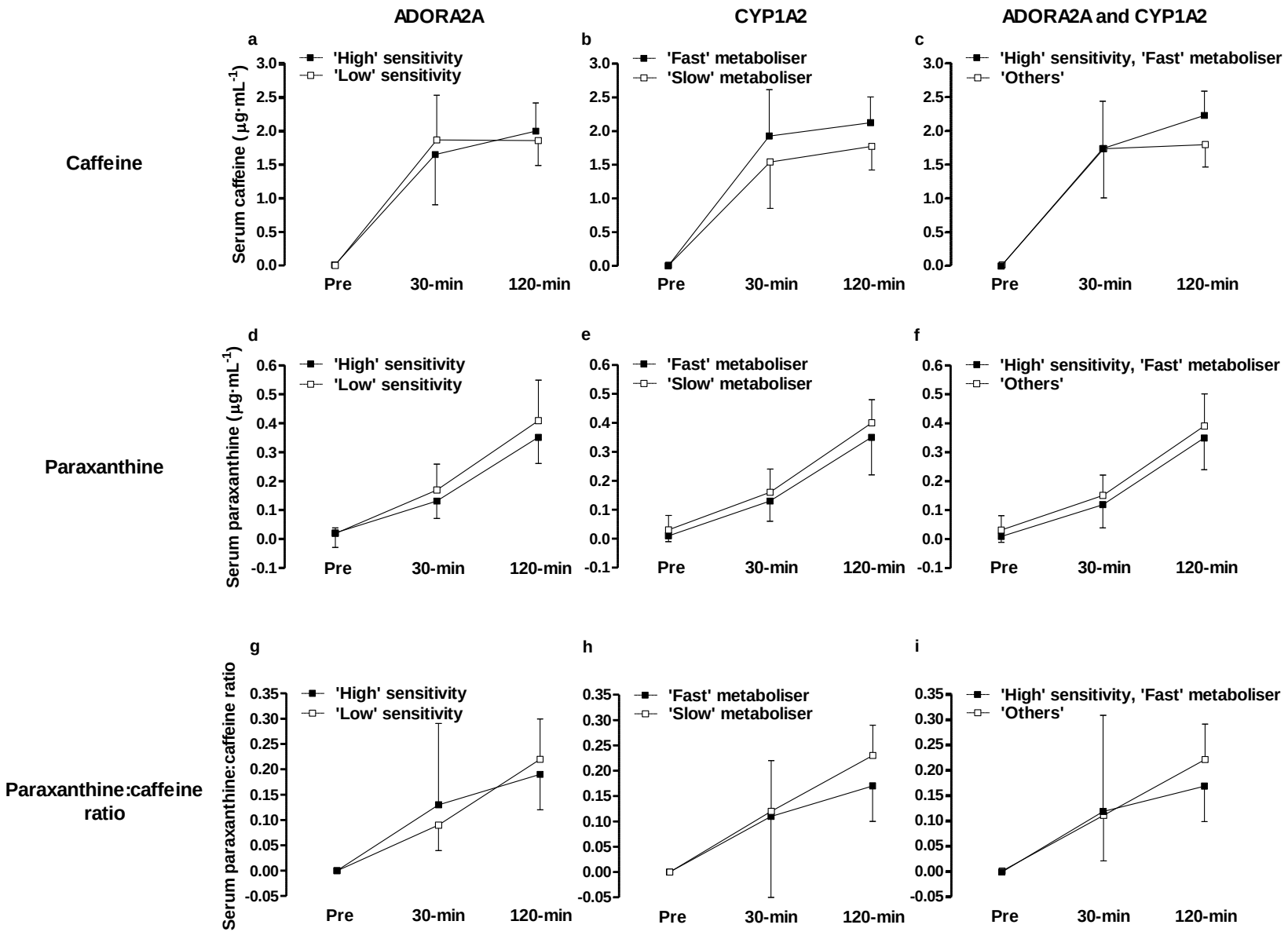
Electronic supplementary material

Supplementary Fig. 1 Serum (a, b, c) caffeine, (d, e, f) paraxanthine, and (g, h, i) the paraxanthine:caffeine ratio measured pre-supplementation, and 30-min and 120-min post-caffeine supplementation (3 $mg \cdot kg^{-1}$ body mass). Participants (n = 16) are categorised according to ADORA2A genotype (a, d, g: 'high', n = 10 or 'low' sensitivity, n = 6); CYP1A2 genotype (b, e, h: 'fast', n = 8 or 'slow' metaboliser, n = 8); and ADORA2A and CYP1A2 genotypes (c, f, i: 'high' sensitivity, 'fast' metaboliser, n = 6 or 'others', n = 10). Data are mean ± SD. Mixed model ANOVA genotype x time interaction $P > 0.05$ for caffeine, paraxanthine and the paraxanthine:caffeine ratio


ADORA2A
CYP1A2
ADORA2A and CYP1A2
Caffeine
Paraxanthine
Paraxanthine:caffeine ratio
a
b
c
d
e
f
g
h
i
'High' sensitivity
'Low' sensitivity
'Fast' metaboliser
'Slow' metaboliser
'High' sensitivity, 'Fast' metaboliser
'Others'
Serum caffeine (µg·mL-1)
Serum paraxanthine (µg·mL-1)
Serum paraxanthine:caffeine ratio
Pre
30-min
120-min