

Supplemental Information:

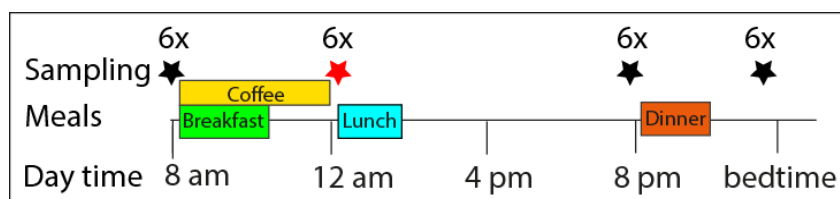


Figure 1: Study design for the dietary intervention study with $n=8$ volunteers over 6 days. In the coffee consumption period between 8 am and 12 am, 6 volunteers drank coffee, 2 volunteers deviated from the protocol and consumed Earl Grey tea and chicory coffee.

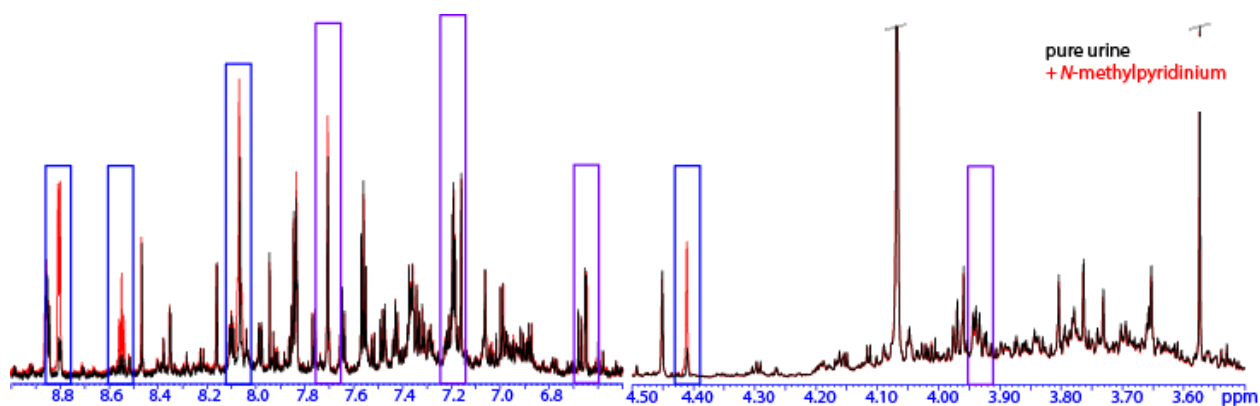


Figure 2: Standard addition experiment of *N*-methylpyridinium to a urine sample. Black: urine sample collected after coffee consumption, red: spiking of NMP to the same urine sample for confirmation of the assumed chemical structure of the biomarker.

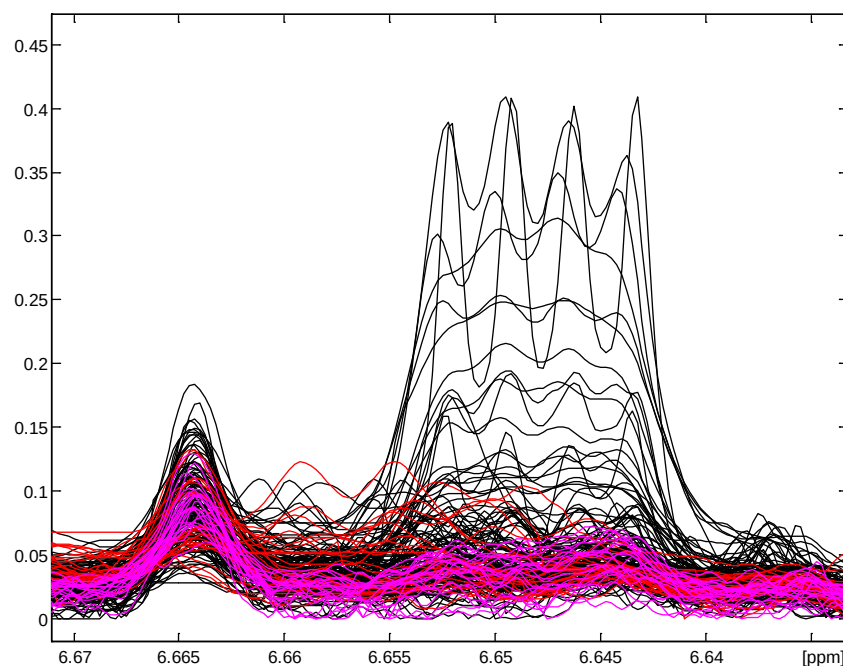


Figure 3: Urine spectral region of 2-FG (6.63 – 6.67 ppm) in all volunteers. Black: all coffee consumers; red, tea consumer; magenta, chicory coffee consumer. Both alternative coffee consumers do not excrete 2-FG at any time point.

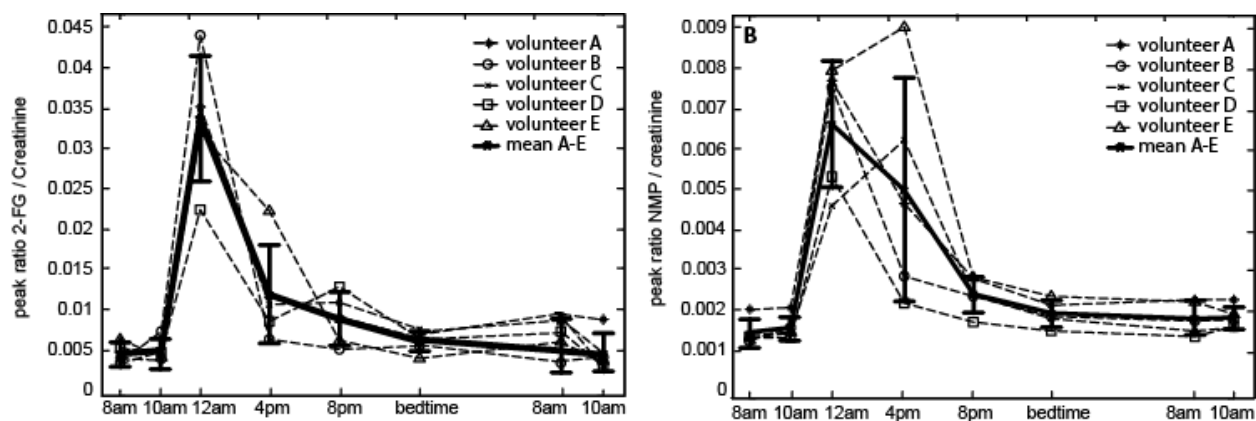


Figure 4: (A) Excretion kinetics of 2-furoylglycine and (B) of *N*-methylpyridinium after coffee consumption ($n=5$) over 26 hours. Coffee was consumed at 10 am. 2-FG and NMP were quantified by integration of the signal at δ 6.647 (dd) and δ 8.79 (d), respectively and are shown as a ratio to creatinine (δ 4.05 (s)). 2-FG showed only little inter-individual variation, whereas NMP exhibited higher variation between the participants.