

Estimating the cold-induced brown adipose tissue glucose uptake rate measured by ¹⁸F-FDG PET using infrared thermography and water-fat separated MRI

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Differences of the multi-echo scan of the first subject and how these were handled

The multi-echo scan of the first subject differed from the multi-echo scans of the later subjects in the following way: TR/TE₁/ΔTE = 22.5/2.06/1.07 ms, 15 unipolar echoes in 3 echo trains, flip angle = 7°, field of view (right-left × anterior-posterior × feet-head) = 480×202×56 mm³. The subject was scanned again at a later visit using both the original protocol as well as the protocol used for the other subjects. Differences in BAT FF and R₂* for the two protocols were calculated, and these values were used the correct the values from the first visit.

Supplementary table

Supplementary Table S1. Simple linear regressions of all continuous variables against all other continuous variables.

Variable 1\Variable 2	Age (years)	Height (cm)	Weight (kg)	BMI (kg/m ²)	Total BAT GUR (μmol/min)	SCF _{neutral} (°C)	SCF _{cold} (°C)	PNR _{neutral} (°C)	PNR _{cold} (°C)	BAT FF _{2e} (%)	BAT FF _{15e} (%)	BAT R ₂ * (s ⁻¹)
Age (years)	-	0.28/0.12	0.0065/0.54	0.0040/0.58	0.40/0.072	0.015/0.46	0.021/0.43	0.12/0.22	0.16/0.19	0.028/0.40	0.082/0.27	0.061/0.31
Height (cm)	-	-	0.019/0.44	0.28/0.12	0.51/0.044	0.58/0.032	0.70/0.015	0.82/0.0051	0.61/0.028	0.25/0.13	0.23/0.14	0.35/0.088
Weight (kg)	-	-	-	0.000012/0.86	0.057/0.32	0.027/0.40	0.011/0.49	0.93/0.00088	0.69/0.017	0.0059/0.55	0.014/0.47	0.010/0.50
BMI (kg/m ²)	-	-	-	-	0.039/0.36	0.0093/0.51	0.00086/0.69	0.77/0.0088	0.84/0.0042	0.0043/0.57	0.014/0.47	0.0054/0.56
Total BAT GUR (μmol/min)	-	-	-	-	-	0.055/0.32	0.0051/0.56	0.15/0.20	0.072/0.29	0.0075/0.53	0.0049/0.56	0.072/0.29
SCF _{neutral} (°C)	-	-	-	-	-	-	0.000091/0.80	0.70/0.016	0.97/0.00016	0.0030/0.60	0.0011/0.67	0.00037/0.73
SCF _{cold} (°C)	-	-	-	-	-	-	-	0.82/0.0052	0.81/0.0063	0.00024/0.76	0.00035/0.74	0.00076/0.69
PNR _{neutral} (°C)	-	-	-	-	-	-	-	-	0.00010/0.79	0.65/0.022	0.44/0.061	0.70/0.015
PNR _{cold} (°C)	-	-	-	-	-	-	-	-	-	0.36/0.083	0.23/0.14	0.48/0.050
BAT FF _{2e} (%)	-	-	-	-	-	-	-	-	-	-	0.00000048/0.93	0.00064/0.70
BAT FF _{15e} (%)	-	-	-	-	-	-	-	-	-	-	-	0.000066/0.81
BAT R ₂ * (s ⁻¹)	-	-	-	-	-	-	-	-	-	-	-	-

p-value/R². Statistically significant correlations in **bold**.