

Supplemental Figure 1: CT (left panels) and PET/CT fusion images (right panels) of ^{11}C tissue activity in the neck and upper chest area 80 seconds after IV injection of ^{11}C -acetate from dynamic list-mode acquisitions at room temperature (upper row) and during cold exposure (lower row) in one of the participants. The circle in all frames shows the supraclavicular BAT, illustrating the increase in ^{11}C -acetate activity in BAT during cold exposure vs. at room temperature. Arrows indicate carotid arteries.

Supplemental Figure 2: Correlation between BAT volume of activity and shivering during cold exposure expressed as % maximal voluntary muscle contraction.

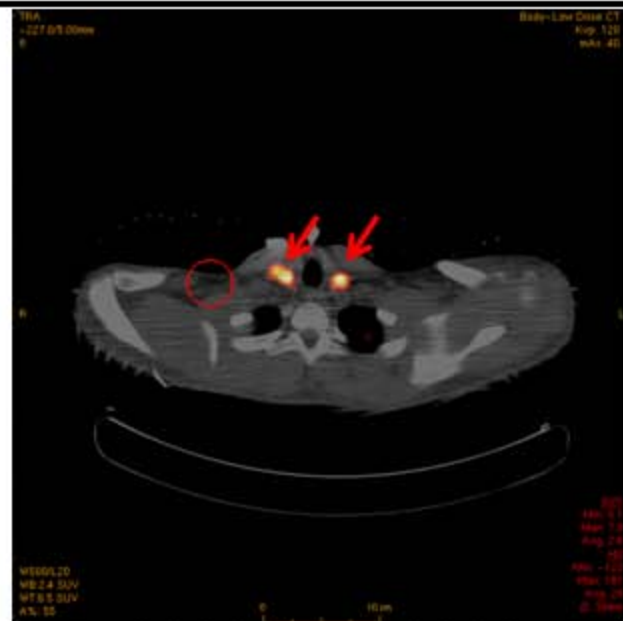
Supplemental Table:

Spearman correlation between brown adipose tissue volume of activity and metabolic parameters

	<i>r</i>	<i>P</i>
BAT K_m FDG (nmol/ml/min)	0.66	0.18
BAT K_m FTHA (nmol/ml/min)	0.37	0.50
ΔRa_{NEFA} (μ mol/min)	0.50	0.45
ΔTEE (kcal/min)	0.20	0.71
Muscle shivering (% MVC)	-0.89	0.03
ΔBAT ^{11}C -acetate <i>K</i>	-0.66	0.18

BAT: brown adipose tissue; Δ : change between cold exposure vs. room temperature; K_m FDG: glucose uptake; K_m FTHA: nonesterified fatty acid uptake; MVC: maximal voluntary contraction; Ra_{NEFA} : nonesterified fatty acid rate of appearance in plasma; TEE: total energy expenditure.

Room Temperature



Cold Exposure

