

SUPPLEMENTARY MATERIAL

Supplementary table 1. Associations between subcutaneous white adipose tissue (scWAT) and descending aorta ¹⁸F-fluorodeoxyglucose uptake, and whole-body adiposity in men.

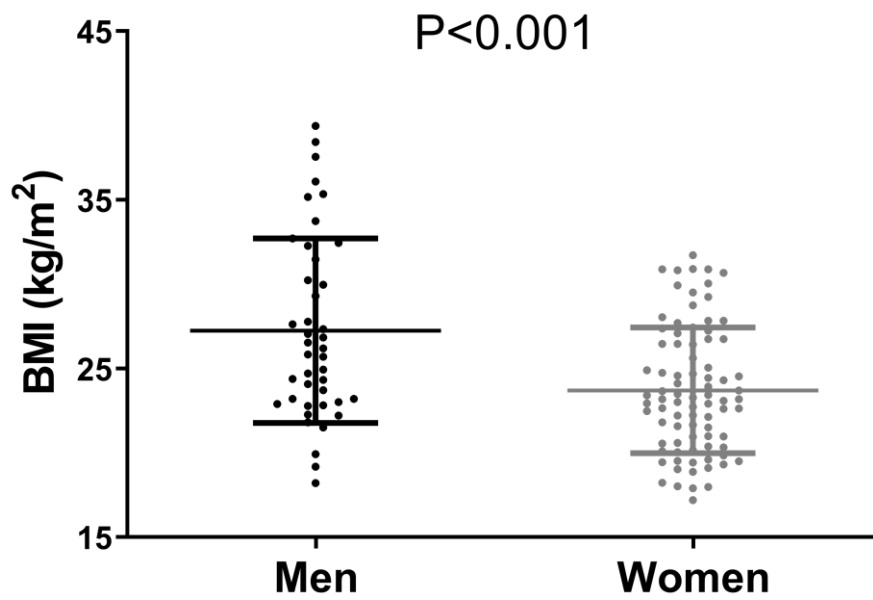
	BMI (kg/m ²)			Waist circumference (cm)			Fat mass (kg)			Fat mass (%)			VAT (g)		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Model 0															
scWAT dorsocervical SUV _{peak}	-2.588	0.005	0.670	-12.450	0.014	0.471	-0.276	0.000	0.982	5.585	0.012	0.509	-86.691	0.005	0.668
scWAT tricipital SUV _{peak}	-40.338	0.227	0.001	-96.750	0.164	0.008	-80.045	0.215	0.002	-16.195	0.280	0.337	-80.045	0.215	0.002
Descending aorta SUV _{peak}	-0.720	0.001	0.875	-11.674	0.021	0.363	1.157	0.000	0.901	1.544	0.001	0.809	-39.519	0.002	0.791
Model 1 (Date PET-CT)															
scWAT dorsocervical SUV _{peak}	-2.672	0.020	0.662	-12.658	0.025	0.468	-0.474	0.020	0.970	5.432	0.037	0.521	-87.141	0.005	0.670
scWAT tricipital SUV _{peak}	-40.012	0.229	0.002	-95.938	0.165	0.009	-78.904	0.220	0.003	-61.508	0.287	<0.001	-1139.877	0.168	0.008
Descending aorta SUV _{peak}	-0.798	0.008	0.863	-11.873	0.027	0.359	0.955	0.013	0.919	1.374	0.020	0.830	-39.471	0.002	0.794
Model 2 (Date PET-CT and HOMA-IR)															
scWAT dorsocervical SUV _{peak}	-0.121	0.575	0.976	-6.358	0.442	0.635	4.594	0.536	0.603	8.403	0.424	0.212	-6.707	0.505	0.964
scWAT tricipital SUV _{peak}	-32.244	0.613	0.001	-76.513	0.467	0.011	-63.540	0.582	0.001	-52.915	0.527	0.000	-889.974	0.541	0.006
Descending aorta SUV _{peak}	-2.498	0.480	0.463	-16.179	0.407	0.119	-2.387	0.452	0.737	-0.563	0.334	0.917	-93.632	0.451	0.413
Model 3 (Date PET-CT and BSA)															
scWAT dorsocervical SUV _{peak}	-0.889	0.674	0.804	-7.650	0.659	0.465	3.500	0.784	0.561	7.621	0.543	0.203	-29.312	0.628	0.817
scWAT tricipital SUV _{peak}	-22.615	0.765	0.002	-46.369	0.712	0.039	-40.690	0.842	0.001	-41.123	0.664	0.001	-580.867	0.687	0.033
Descending aorta SUV _{peak}	-1.345	0.702	0.600	-13.397	0.705	0.068	-0.225	0.791	0.959	0.705	0.553	0.872	-56.731	0.650	0.532
Model 4 (Date PET-CT and vest T ^a)															
scWAT dorsocervical SUV _{peak}	-6.281	0.147	0.474	-23.103	0.123	0.394	-5.391	0.197	0.778	4.200	0.188	0.754	-265.131	0.119	0.409
scWAT tricipital SUV _{peak}	-39.418	0.393	0.063	-50.329	0.215	0.455	-53.780	0.351	0.248	-31.672	0.338	0.336	-651.737	0.201	0.417
Descending aorta SUV _{peak}	-4.760	0.273	0.486	-28.602	0.279	0.159	-9.453	0.314	0.516	-3.371	0.305	0.743	-176.949	0.193	0.476

Unstandardized β , R² and P from multiple linear regressions. Model 0: simple linear regression; Model 1: Adjusted by date when BAT assessment was performed. Model 2: Model 1 and the homeostasis model assessment of insulin resistance (HOMA-IR). Model 3: Model 2 and body surface area (BSA); Model 4: Model 2 and the water temperature at the cooling vest prior to the PET-CT. BMI: Body mass index; SUV: Standardized uptake value; VAT: Visceral adipose tissue.

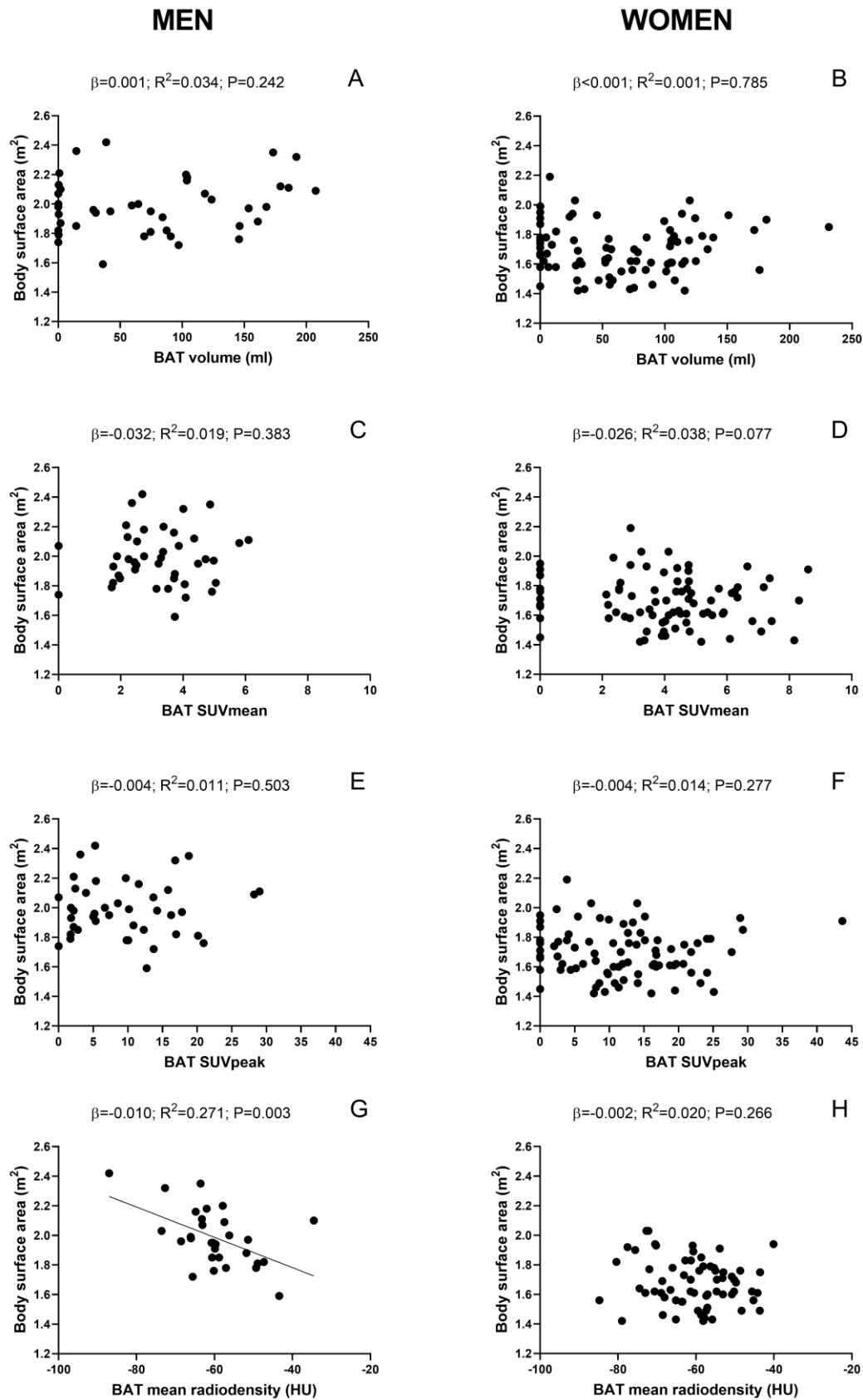
Supplementary table 2. Associations between subcutaneous white adipose tissue (scWAT) and descending aorta ¹⁸F-fluorodeoxyglucose uptake, and whole-body adiposity in women.

	BMI (kg/m ²)			Waist circumference (cm)			Fat mass (kg)			Fat mass (%)			VAT (g)		
	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P	β	R ²	P
Model 0															
scWAT dorsocervical SUV _{peak}	3.680	0.021	0.193	15.355	0.044	0.061	6.521	0.016	0.255	2.406	0.004	0.588	51.808	0.002	0.666
scWAT tricipital SUV _{peak}	5.688	0.002	0.670	20.012	0.004	0.601	7.395	0.001	0.785	46.676	0.085	0.007	7.395	0.001	0.785
Descending aorta SUV _{peak}	0.025	0.000	0.992	3.400	0.003	0.640	0.306	0.000	0.952	-3.216	0.008	0.412	-5.935	0.000	0.955
Model 1 (Date PET-CT)															
scWAT dorsocervical SUV _{peak}	3.702	0.021	0.193	15.448	0.045	0.061	6.554	0.016	0.256	2.343	0.005	0.600	52.766	0.003	0.663
scWAT tricipital SUV _{peak}	5.871	0.002	0.665	20.467	0.004	0.597	7.566	0.001	0.783	-30.971	0.029	0.143	29.704	0.000	0.959
Descending aorta SUV _{peak}	0.014	0.000	0.996	3.325	0.003	0.650	0.291	0.000	0.955	-3.180	0.009	0.421	-6.584	0.001	0.951
Model 2 (Date PET-CT and HOMA-IR)															
scWAT dorsocervical SUV _{peak}	4.876	0.218	0.067	18.650	0.255	0.012	8.946	0.160	0.108	3.996	0.098	0.366	66.853	0.197	0.548
scWAT tricipital SUV _{peak}	-7.634	0.181	0.559	-7.675	0.180	0.833	-14.943	0.130	0.583	-48.593	0.150	0.022	-584.812	0.205	0.279
Descending aorta SUV _{peak}	-1.010	0.183	0.664	2.826	0.187	0.671	-1.489	0.132	0.759	-4.398	0.108	0.250	-42.532	0.198	0.659
Model 3 (Date PET-CT and BSA)															
scWAT dorsocervical SUV _{peak}	0.040	0.544	0.984	5.210	0.509	0.387	-2.197	0.743	0.467	-2.317	0.351	0.531	-94.118	0.472	0.298
scWAT tricipital SUV _{peak}	-11.551	0.539	0.224	-21.834	0.498	0.438	-34.014	0.745	0.019	-53.823	0.402	0.002	-658.076	0.463	0.131
Descending aorta SUV _{peak}	-2.723	0.548	0.118	-2.354	0.499	0.655	-6.179	0.746	0.021	-6.627	0.362	0.042	-113.132	0.463	0.159
Model 4 (Date PET-CT and vest T ^a)															
scWAT dorsocervical SUV _{peak}	2.441	0.114	0.546	22.190	10.506	0.041	6.020	0.168	0.426	2.104	0.083	0.736	-28.380	0.161	0.861
scWAT tricipital SUV _{peak}	-6.794	0.110	0.694	25.313	0.067	0.595	-14.348	0.158	0.658	-46.452	0.158	0.077	-490.843	0.175	0.476
Descending aorta SUV _{peak}	-4.810	0.153	0.149	0.197	0.061	0.983	-5.779	0.172	0.359	-6.783	0.127	0.189	-137.843	0.187	0.304

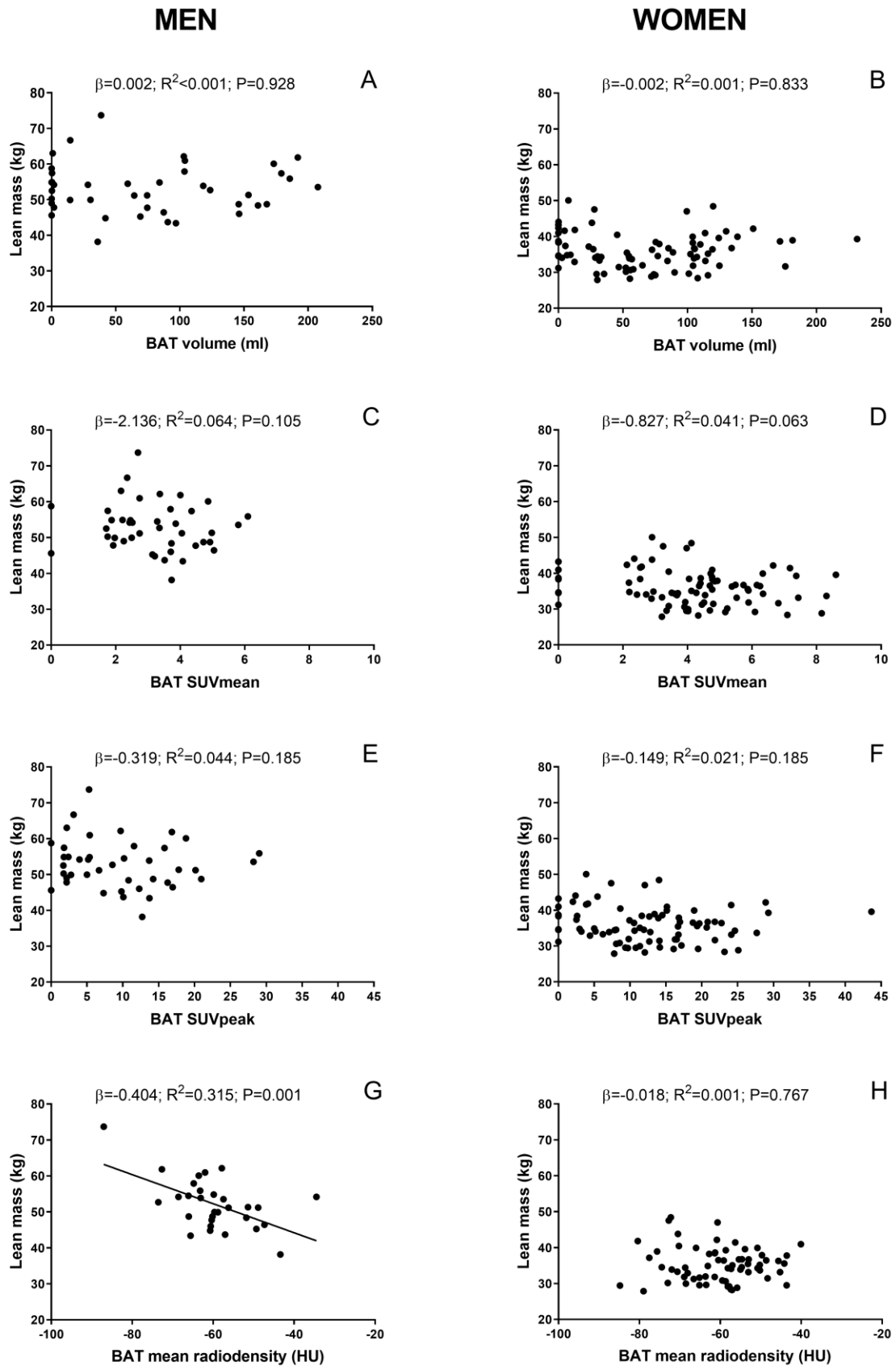
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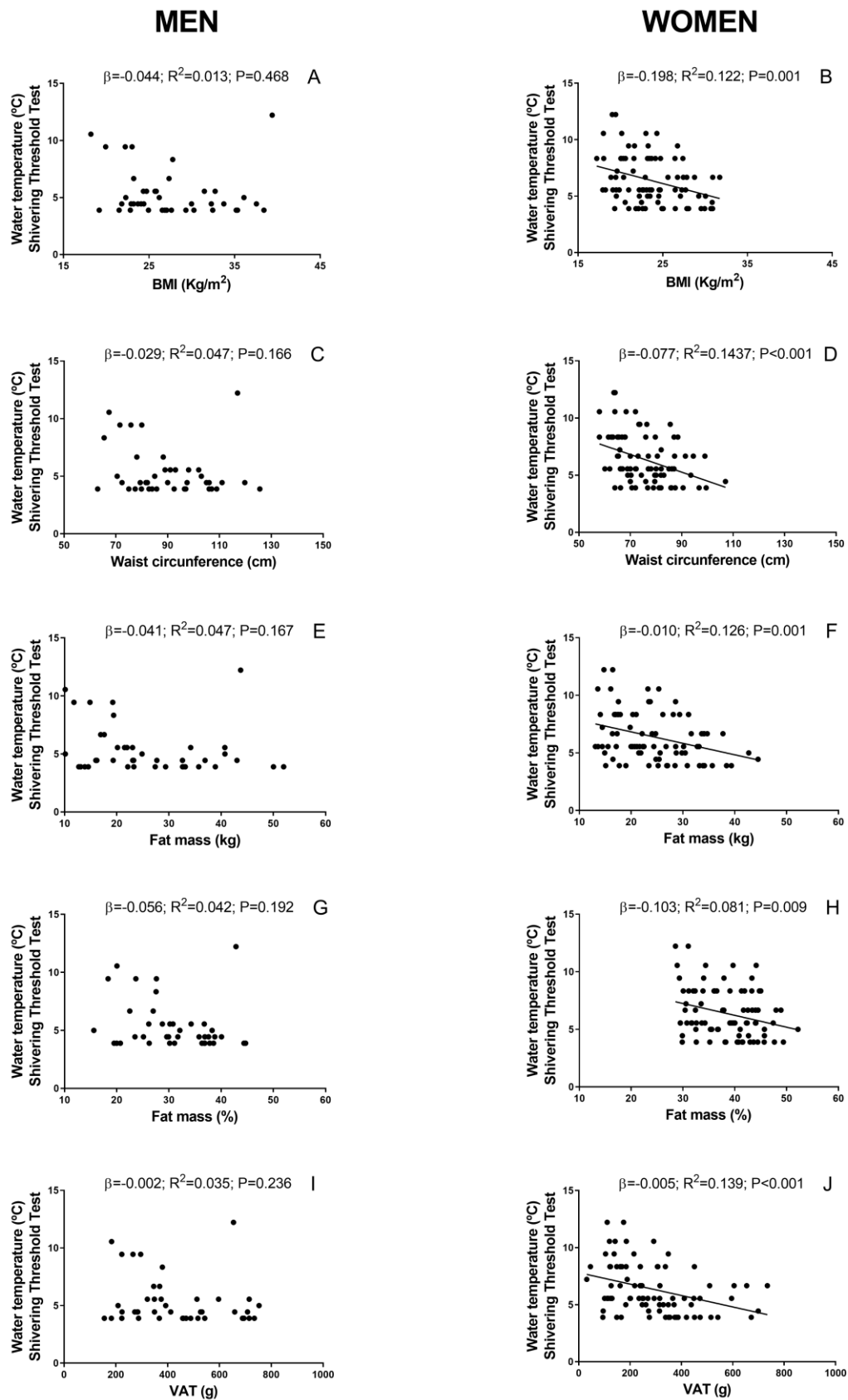
Supplementary figure 1. Differences in body mass index (BMI) between men (n=42) and women (n=84). P value from a student t-test.



Supplementary figure 2. Associations between brown adipose tissue (BAT) variables and body surface area. β = unstandardized simple regression coefficient; R^2 = standardized coefficient of determination. HU: Hounsfield units; SUV: Standardized uptake value.



Supplementary figure 3. Associations between brown adipose tissue (BAT) variables and lean mass. β = unstandardized simple regression coefficient; R^2 = standardized coefficient of determination. HU: Hounsfield units; SUV: Standardized uptake value.



Supplementary figure 4. Associations between body composition and the cooling-vest water temperature at the onset of shivering during the shivering threshold test. β = unstandardized simple regression coefficient; R^2 = standardized coefficient of determination. BMI= Body mass index; VAT= Visceral adipose tissue.