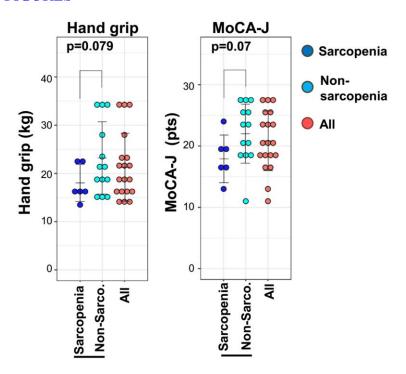
SUPPLEMENTARY FIGURES

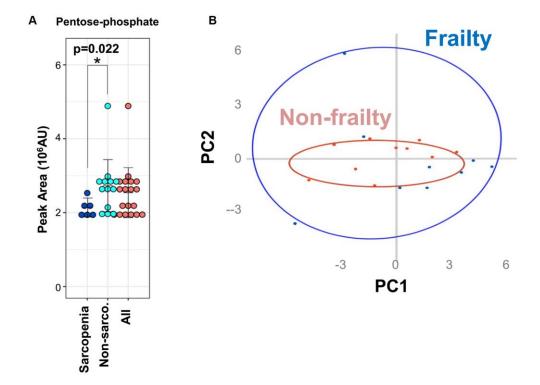


Supplementary Figure 1. Supplemental clinical data between sarcopenia and non-sarcopenia. Comparison of handgrip strength (left panel) and MoCA-J (right panel) between sarcopenia and non-sarcopenia were shown.

Isovaleryl-carnitine																									
0.43	0.43 Acetyl-carnitine																								
0.43	0.61	2-Oxoglutarate																							
0.39	0.48	0.66	Cis-aconitate Positive correlation (p < 0.05) Positive correlation (p < 0.01) Negative correlation (p < 0.05)																						
0.40	0.45	0.75	0.59	Succ	inate								Nega	itive o	corre	latior	ı̈(р <	0.05)						
-0.13	-0.38	-0.56	- 0.45	-0.60	Negative correlation (p < 0.01) Aspartate																				
0.48	0.41	0.38	0.67	0.50 -0.12 N-Acetyl-glutamate																					
0.62	0.25	0.38	0.12	0.31	.31 -0.37 0.13 Hippurate																				
0.27	0.31	0.38	0.45	0.62	-0.30 0.26 0.08 Hypoxanthine																				
0.73	0.17	0.25	0.42	0.38	0.00	0.58	0.41	0.48	Urate	е															
0.41	0.18	0.39	0.54	0.56	-0.17	0.41	0.23	0.76	0.71	Creati	inine														
0.49	-0.14	0.23	0.58	0.41	-0.19	0.42	0.23	0.53	0.71	0.73	Dime	thyl-a	rginine	е											
0.57	0.32	0.35	0.69	0.32	-0.21	0.81	0.27	0.30	0.66	0.56	0.60	Dime	thyl-gı	uanosi	ine										
0.44	0.50	0.38	0.51	0.56	-0.28	0.45	0.24	0.71	0.58	0.67	0.51	0.58	N1-M	ethyl-g	guanosine										
0.27	0.00	0.06	0.52	0.27	0.05	0.52	-0.12	0.55	0.52	0.71	0.73	0.64	0.58	Quinc	olinic acid										
0.59	0.10	0.23	0.62	0.40	-0.10	0.65	0.24	0.43	0.64	0.69	0.84	0.74	0.64	0.55	N1-Methyl-histidine										
0.57	0.21	0.15	0.41	0.23	0.02	0.66	0.46	0.39	0.67	0.45	0.58	0.69	0.58	0.54	0.69	Buty	Butyro-betaine								
0.23	0.76	0.44	0.48	0.38	-0.16	0.49	0.04	0.26	0.12	0.27	-0.13	0.42	0.46	0.24	0.23	0.21	N1-Methyl-adenosine								
0.24	0.58	0.48	0.50	0.32	-0.25	0.31	0.09	0.25	0.00	0.12	0.12	0.28	0.36	0.07	0.36	0.26	0.58	0.58 Dimethyl-proline							
0.55	-0.14	-0.03	0.30	0.05	0.31	0.57	0.38	0.13	0.55	0.30	0.62	0.65	0.59	0.27	0.59	0.61	0.08	0.18							
0.37	-0.01	i	-0.08		ļ	0.08	0.28		0.20	0.11	0.23	0.03	0.10	0.31	0.34	0.31	0.10								
0.27	0.35	0.53	0.54	0.71	-0.17	0.39	0.05	0.71	0.33	0.75	0.45	0.32	0.48	0.55	0.48	0.57	0.56	0.50 0.23 0.05 Myo-Inositol							
0.27	0.18	0.42	0.30	0.17	-0.37	0.22	0.43	0.16	0.17	0.25	0.32	0.49	0.10	0.32	0.10	0.34	0.09	0.12	0.18	0.11	0.06	Pantothenate			
0.48	0.22	0.04	0.40	0.10	-0.16	0.72	0.30	0.04	0.52	0.15	0.39	0.79	0.42	0.35	0.42	0.71	0.20	0.13	0.54	0.42	-0.05	0.36	Phenylalanine		
0.05	0.30	0.46	0.44	0.72	-0.29	0.32	0.01	0.55	0.27	0.55	0.31	0.08	0.42	0.39	0.42	0.16	0.45	0.40	-0.03	-0.01	0.82	-0.09	Pentose-		

Supplementary Figure 2. Blood metabolites significantly affected in sarcopenia and muscle mass. Pearson's correlation analysis for 25 metabolites, relevant to sarcopenia or SMI. Positive and negative correlations are shown in brown and blue, respectively. Significant correlations between TCA cycle metabolites (cis-aconitate, 2-oxoglutarate, and succinate) or kidney markers (creatinine, dimethyl-arginine, dimethyl-guanosine, urate, hypoxanthine, N1-methyl-guanosine, and quinolinic acid) were observed.

0.05 0.30 **0.46** 0.44 **0.72** -0.29 0.32 0.01 **0.55** 0.27 **0.55** 0.31 0.08 0.42 0.39 0.42 0.16 0.45 0.40 -0.03 -0.01 **0.82** -0.09 -0.11



Supplementary Figure 3. Pentose-phosphates as sarcopenic markers and PCA for frailty using sarcopenia markers. (A) Pentose-phosphates were significantly decreased in sarcopenia. Error bars represent means \pm SD. Asterisks indicate significant difference (*p < 0.05). (B) PCA with 22 sarcopenia markers did not distinguish frailty patients from non-frailty controls.