

1 **Supplementary materials**

2 **Supplementary file 1**

3 **Table S1**

4 Characteristics of the age-and-sex-matched healthy control subjects

Characteristic	Controls (n = 23)
General characteristics	
Age (y)	62.3 ± 4.2
Male (%)	69.6
Body mass index (kg/m ²)	21.1 ± 1.6
Smoking (%)	17.4
Family history (%)	—
Lipid (mmol/L)	
Total cholesterol	4.5 ± 0.4
Triglyceride	0.9 ± 0.3
HDL-C	1.4 ± 0.3
LDL-C	2.9 ± 0.5
Blood pressure (mmHg)	
Systolic blood pressure	115.0 ± 13.5
Diastolic blood pressure	76.5 ± 7.8
Disease (%)	
Hypertension	0.0
Hyperlipidemia	0.0
Acute coronary syndrome	0.0

Medicine (%)	
Aspirin	0.0
Statins	0.0
Iron status	
Ferritin (ng/mL)	124.0 (93.3, 161.3)
Overloaded (%)	8.7
CRP (mg/L)	0.7 (0.4, 1.8)

5 HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol; CRP: C-reactive protein; —: no data.

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7 **Supplementary file 2**

8 **Table S2**

9 Correlations of Ery-FAs and FA desaturase activities with plasma ferritin levels of different sex

FAs	Males (n = 343)		Females (n = 103)	
	<i>r</i>	<i>p</i> Value	<i>r</i>	<i>p</i> Value
SFAs	0.083	0.128	0.170	0.108
Palmitic acid (16:0)	-0.095	0.080	0.063	0.555
Stearic acid (18:0)	0.059	0.281	-0.012	0.909
Arachidic acid (20:0)	-0.026	0.631	-0.077	0.470
Docosanoic acid (22:0)	0.182	0.001	0.023	0.830
Tetracosanoic acid (24:0)	0.214	<0.001	0.151	0.151
MUFAs	-0.058	0.293	-0.016	0.879
Palmitoleic acid (16:1n-7)	0.047	0.386	0.061	0.565
n-9	-0.064	0.240	-0.016	0.878
Oleic acid (18:1n-9)	-0.120	0.028	-0.068	0.517
Eicosenoic acid (20:1n-9)	-0.032	0.564	-0.017	0.869
Docosenoic acid (22:1n-9)	-0.056	0.302	-0.169	0.105
Nervonic acid (24:1n-9)	0.106	0.053	0.131	0.211
PUFAs	-0.048	0.379	-0.074	0.489
n-3 PUFAs	0.073	0.181	0.064	0.542
Alpha-linolenic acid (18:3n-3)	-0.041	0.453	0.056	0.598
Eicosatrienoic acid (20:3n-3)	-0.055	0.311	0.011	0.919
Eicosapentaenoic acid (20:5n-3)	-0.023	0.679	0.070	0.504
Docosapentaenoic acid (22:5n-3)	0.071	0.192	0.124	0.240
Docosahexaenoic acid (22:6n-3)	0.055	0.313	0.082	0.437
n-6 PUFAs	-0.102	0.063	-0.140	0.185
Linoleic acid (18:2n-6)	-0.216	<0.001	0.008	0.942

Gamma-linolenic acid (18:3n-6)	0.040	0.467	0.011	0.920
Eicosadienoic acid (20:2n-6)	-0.032	0.552	0.072	0.494
Arachidonic acid (20:4n-6)	0.061	0.269	-0.113	0.290
Adrenic acid (22:4n-6)	0.042	0.441	-0.008	0.941
FA ratios				
16:1n-7/16:0 (estimated SCD activity)	0.077	0.157	0.047	0.657
18:1n-9/18:0 (estimated SCD activity)	-0.132	0.015	-0.013	0.901
24:1n-9/24:0 (estimated SCD activity)	-0.202	<0.001	-0.015	0.886

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11 Abbreviations: CAD: coronary artery disease; Ery-FAs: erythrocyte membrane fatty acids; MUFAs: monounsaturated fatty acids; PUFAs:

12 polyunsaturated fatty acids; SCD: stearyl-CoA desaturase; SFAs: saturated fatty acids.

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