## S1 Table. Spearman’s rank correlation coefficients between anthropometric measurements, serum fatty acids, and estimated desaturase activities.\textsuperscript{1,2}

| Men/Women\textsuperscript{1} | BMI  | SAD  | WC   | WHR  | SADHR | WCHR | WHHR | PA    | LA    | ALA   | EPA   | DHA   | SCD   | D5D   | D6D   |
|-------------------------------|------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| BMI                           | 0.83 | 0.86 | 0.50 | 0.85 | 0.88  | 0.50 | 0.02 | -0.14 | -0.06 | 0.01  | -0.05 | 0.26  | -0.22 | 0.25  |
| SAD                           | 0.83 | 0.87 | 0.59 | 0.96 | 0.84  | 0.50 | 0.00 | -0.16 | -0.03 | 0.00  | -0.10 | 0.29  | -0.25 | 0.27  |
| WC                            | 0.88 | 0.87 | 0.78 | 0.83 | 0.96  | 0.67 | 0.04 | -0.19 | -0.01 | 0.00  | -0.09 | 0.30  | -0.26 | 0.29  |
| WHR                           | 0.63 | 0.71 | 0.82 | 0.59 | 0.79  | 0.90 | 0.07 | -0.19 | 0.04  | -0.03 | -0.11 | 0.25  | -0.22 | 0.26  |
| SADHR                         | 0.84 | 0.95 | 0.81 | 0.71 | 0.88  | 0.62 | -0.02 | -0.15 | -0.05 | -0.02 | -0.10 | 0.28  | -0.25 | 0.27  |
| WCHR                          | 0.90 | 0.83 | 0.93 | 0.83 | 0.88  | 0.78 | 0.02 | -0.18 | -0.03 | -0.02 | -0.11 | 0.30  | -0.26 | 0.29  |
| WHHR                          | 0.55 | 0.52 | 0.57 | 0.84 | 0.68  | 0.78 | 0.03 | -0.15 | 0.00  | -0.06 | -0.12 | 0.23  | -0.21 | 0.24  |
| PA                            | 0.14 | 0.15 | 0.17 | 0.15 | 0.12  | 0.14 | 0.08 | -0.69 | -0.17 | 0.37  | 0.38  | 0.21  | 0.19  | 0.19  |
| LA                            | -0.19 | -0.24 | -0.23 | -0.23 | -0.22 | -0.21 | -0.16 | -0.68 | 0.05  | -0.40 | -0.22 | -0.64 | -0.11 | -0.59 |
| ALA                           | -0.11 | -0.07 | -0.10 | -0.08 | -0.09 | -0.12 | -0.10 | -0.16 | 0.05  | 0.07  | -0.17 | 0.14  | -0.26 | 0.05  |
| EPA                           | 0.00 | 0.01 | 0.01 | -0.03 | -0.03 | -0.10 | 0.38 | -0.43 | 0.10  | 0.67  | 0.00  | 0.37  | 0.09  | 0.23  |
| DHA                           | 0.00 | -0.01 | 0.00 | -0.04 | -0.04 | -0.03 | -0.09 | 0.35  | -0.21 | -0.13 | 0.72  | -0.19 | 0.36  | -0.23 |
| SCD                           | 0.27 | 0.32 | 0.28 | 0.27 | 0.32  | 0.29 | 0.23 | 0.23  | 0.66  | 0.11  | 0.07  | 0.07  | -0.18 | -0.30 |
| D5D                           | -0.23 | -0.24 | -0.21 | -0.15 | -0.25 | -0.22 | -0.14 | 0.10  | -0.12 | -0.20 | 0.32  | 0.29  | -0.23 | -0.14 |
| D6D                           | 0.23 | 0.26 | 0.24 | 0.23 | 0.26  | 0.25 | 0.19 | 0.32  | -0.66 | -0.04 | 0.14  | -0.17 | 0.62  | -0.10 |

\textsuperscript{1}AL\textsubscript{A}, α-linolenic acid; D5D, Δ5-desaturase; D6D, Δ6-desaturase; EPA, eicosapentaenoic acid; DHA, docohaenoic acid; LA, linoleic acid; PA, palmitic acid; SAD, sagittal abdominal diameter; SADHR, sagittal abdominal diameter-to-height ratio; SCD, stearyl-CoA-desaturase; WC, waist circumference; WCHR, waist circumference-to-height ratio; WHR, waist-hip ratio; WHHR, waist-hip-height ratio.

\textsuperscript{2}Spearman’s rank correlation coefficients (r) for women and men are shown above and below the diagonal, respectively.

\textsuperscript{3}Significance of r: | r | >0.04, P<0.05; | r | ≥ 0.06, P<0.01; | r | ≥ 0.07 in women or | r | ≥ 0.08 in men, P<0.001; | r | > 0.09, P<0.0001.