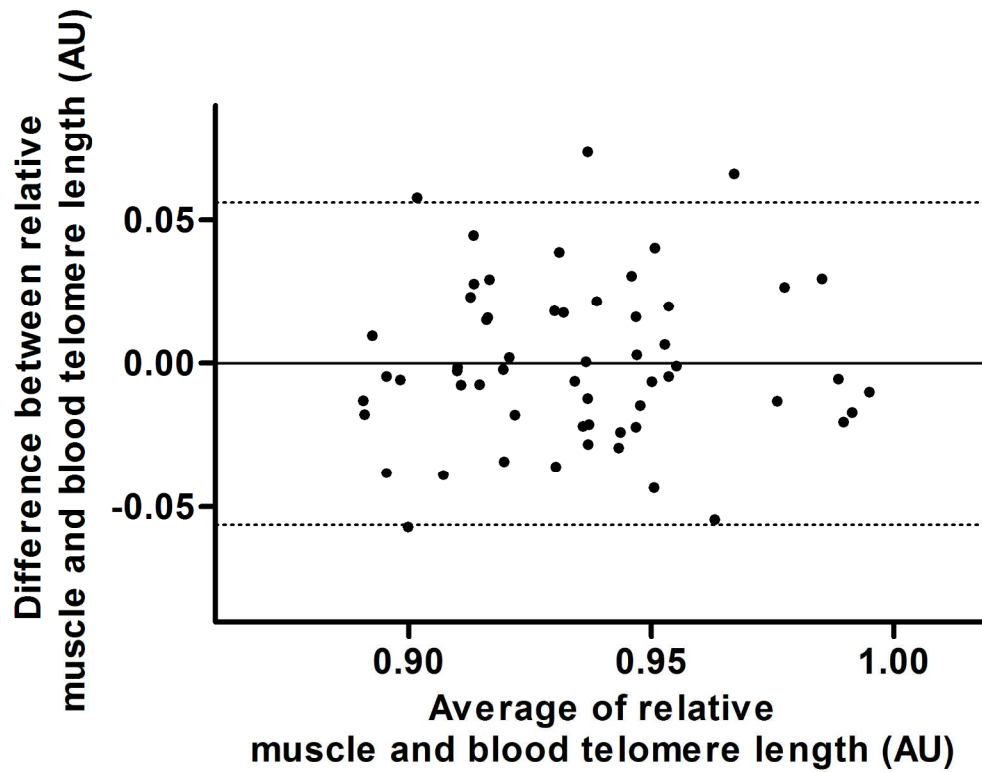**Supplemental Figure 1**

Supplemental Figure 1 Bland-Altman plot comparing muscle and blood telomere length in the MEI and Botnia-PPP studies (n = 58). The middle horizontal line represents the mean calculated difference between muscle and blood telomere length and the upper and lower horizontal dashed lines represent 2 SD above and below the mean (limits of agreement).

Supplementary Table 1 Characteristics of participants from Malmö Exercise Intervention (MEI) and

Botnia-PPP study

	MEI (n=27)	Botnia-PPP Study (n=31)
Age (years)	38.3 (4.2)	50.8 (11.3)*
Gender % (male/female)	100 / 0 (27/0)	48/52 (15/16)*
BMI (kg/m^2)	28.3 (4.2)	28.3 (4.8)
Fasting glucose (mmol/l)	4.23 (0.49)	5.33 (0.45)*
2-h glucose (mmol/l)	5.85 (1.32)	5.17 (1.47)
Fasting insulin (mU/l)	6.25 (6.62)	5.83 (4.02)
Relative Leucocyte telomere Length (AU)	0.96 (0.02)	0.92 (0.02)*
Relative Muscle Telomere Length (AU)	0.95 (0.03)	0.92 (0.03)*

Abbreviations: BMI, body mass index;

Unless otherwise specified, data are prevalence (number) for categorical variables and mean (SD) for continuous variables, apart from the non-normally distributed variables (fasting), where median (interquartile range) is presented. Interquartile range calculated as Q3-Q1. Frequency of participants between MEI and Botnia-PPP studies was assessed by the chi-squared test. Associations for continuous variables including age, BMI, fasting glucose, 2-hr glucose, fasting insulin, relative leucocyte telomere length and relative muscle telomere length were assessed by the student's t-test, apart from non-normally distributed variables (fasting insulin), where the Kruskal -Wallis test was used. * P<0.01