

## SUPPLEMENTARY TABLES

**Supplementary Table 1. PCR primers.**

Assay	Component	Sequence
mtDNA	mtDNA Forward Primer (mtF805)	5' CCACGGGAAACAGCAGTGATT 3'
mtDNA	mtDNA Reverse Primer (mtR927)	5' CTATTGACTTGGGTAAATCGTGTGA 3'
mtDNA	mtDNA TaqMan Probe (LifeTechnologies)	6FAM- 5' TGCCAGCCACCGCG 3'-MGB
Telomere Length	Telc	5'-TGT TAG GTA TCC CTA TCC CTA TCC CTA TCC CTA TCC CTA ACA-3'
Telomere Length	Telg	5'-ACA CTA AGG TTT GGG TTT GGG TTT GGG TTT GGG TTA GTG T-3'
Telomere Length	Albd	5'-GCC CGG CCC GCC GCG CCC GTC CCG CCG GAA AAG CAT GGT CGC CTG TT-3'
Telomere Length	Albu	5'-CGG CGG CGG GCG GCG GCT GGG CGG AAA TGC TGC ACA GAA TCC TTG-3'

**Supplementary Table 2. Cross-sectional analysis of mitochondrial DNA copy number (mtDNACn) and aging biomarkers.**

mtDNACn *	DNAm-Age		DNAm-PhenoAge		DNAm-GrimAge		Telomere Length	
	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value
Q1	Reference		Reference		Reference		Reference	
Q2	-0.21 (-0.85, 0.43)	0.52	-0.80 (-1.49, -0.12)	0.02	-0.02 (-0.31, 0.28)	0.91	0.06 (-0.02, 0.13)	0.13
Q3	-0.59 (-1.29, 0.12)	0.10	-1.01 (-1.75, -0.26)	0.01	-0.02 (-0.35, 0.3)	0.90	0.03 (-0.05, 0.1)	0.49
Q4	-1.11 (-1.88, -0.35)	0.00	-0.83 (-1.65, -0.02)	0.04	0 (-0.36, 0.36)	1.00	-0.01 (-0.08, 0.06)	0.80
p-trend**	-1.47 (-2.79, -0.16)	0.03	-0.16 (-1.48, 1.16)	0.82	0.12 (-0.47, 0.7)	0.70	-0.01 (-0.11, 0.1)	0.88

\*Models adjusted for chronological age, smoking, alcohol use, BMI, cell composition, follow up time, hypertension status, CHD status, and diabetes status.

**Supplementary Table 3. Propsective analyses of baseline mitochondrial copy number (mtDNACn) with aging biomarkers during follow up.**

mtDNACn	DNAm-Age		DNAm-PhenoAge		DNAm-GrimAge		Telomere Length	
	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value	$\beta$ (95% CI)	P-value
Q1	Reference		Reference		Reference		Reference	
Q2	-0.38 (-1.35, 0.6)	0.45	1.05 (0.05, 2.04)	0.04	-0.02 (-0.48, 0.45)	0.94	-0.06 (-0.15, 0.02)	0.16
Q3	-0.22 (-1.2, 0.77)	0.67	0.77 (-0.23, 1.76)	0.13	0.15 (-0.31, 0.61)	0.52	-0.09 (-0.18, -0.01)	0.03
Q4	-0.23 (-1.2, 0.74)	0.64	1.38 (0.38, 2.38)	0.01	-0.02 (-0.48, 0.44)	0.93	-0.08 (-0.17, 0)	0.06
p-trend**	-0.86 (-2.6, 0.87)	0.33	1.51 (-0.29, 3.31)	0.10	-0.22 (-1.64, 1.18)	0.75	-0.16 (-0.31, 0)	0.05

\*All models adjusted for chronological age and outcome measure at baseline, follow up time, smoking, alcohol use, BMI, cell composition, hypertension status, CHD status, and diabetes status. \*\*Using mtDNACn as continuous models.