**Supplemental information**

**Supplementary Table 1.** Replication of age-associated probes in Florath et al. ([31](#_ENREF_31)).

**Supplementary Table 2:** ICC and association between weight and methylation levels for probes with P<10-5.

**Supplementary Figure 1. Replication of probes showing an association between age and methylation levels in Florath et al. 2014** ([31](#_ENREF_31)).

**Supplementary Figure 2. Associations between DNA methylation probes and weight.** Q-Q plot for the relationship between weight and DNA methylation M-values at T0 **(A),** T1 (**B)** and longitudinal data (**C)**; using standard analyses, SVA and cell-type adjustment. Volcano plots for T0 regression coefficients for the relationship between weight and DNA methylation M-values and the corresponding –log10(p-value) at T0 **(D),** T1 (**E)** and longitudinal data (**F).** Greyscale (light – dark) shows ICC values (low – high).Scatter plots of regression coefficients from cross-sectional (D,E) and longitudinal analysis (F) of weight and DNA methylation M-values are shown**.**

**Supplementary Figure 3. Q-Q plots for associations between DNA methylation M-values and smoking status, using standard regression analyses, SVA-adjusted analyses, and analyses adjusting for cell type.**

**Supplementary Figure 4. Q-Q plots for associations between DNA methylation M-values and various subject characteristics, using standard regression analyses, SVA-adjusted analyses, and analyses adjusting for cell type.**