

Father's adolescent body silhouette is associated with offspring asthma, lung function and BMI through DNA methylation

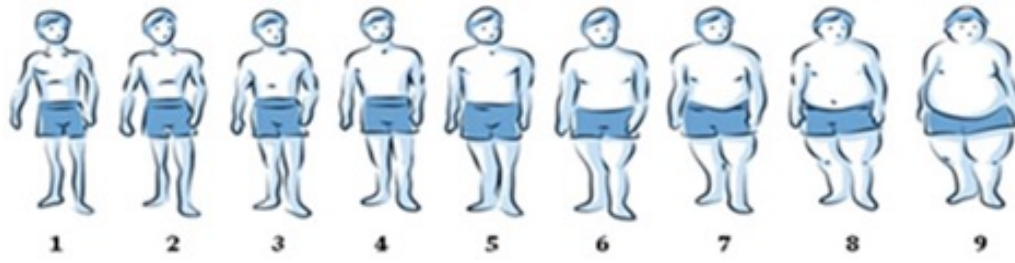
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Supplementary data (<https://doi.org/10.5258/SOTON/D3067>)

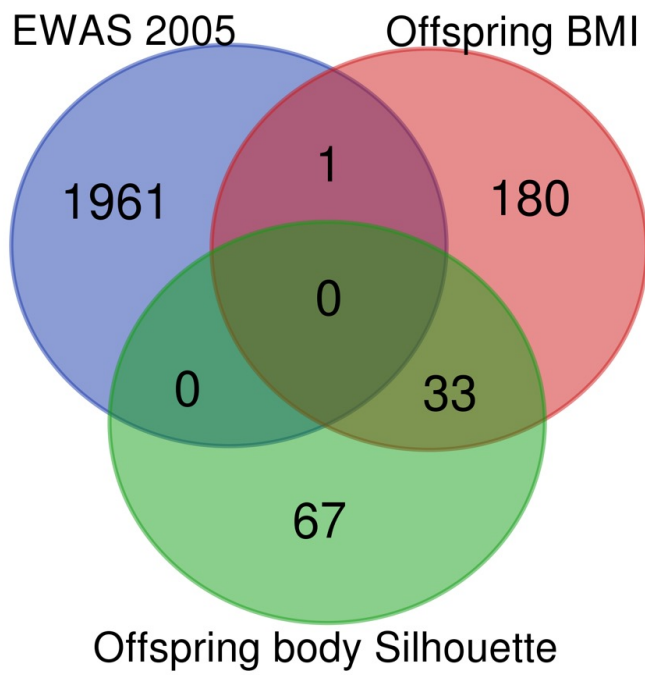
Note EWAS list and label used on each excel sheet.

1. Summary statistics for association father body silhouette and offspring DNA methylation at FDR ≤ 0.05 .
 - a. Data 1A EWAS dmCpGs.xlsx
 - b. Data 1B EWAS dmCpGs Mvalue and beta compared_VB.xlsx and
2. Differential methylated region Data 2 DMR.xlsx
3. Look up of dmCpGs overlap with transcription factor binding sites from eForege-TF q-value < 0.05 . Data 3 TF.xlsx
4. Look-up of dmCpGs in EWAS Atlas effect methylation on gene expression(meQTL) $p < 0.05$. Data 4 eQTL.xlsx
5. Pathway signalling enrichment from methylR. Data 5 methylRR.xlsx
6. Gene ontology terms, gene description and lipid traits from String database for dmCpGs at FDR ≤ 0.05 . Data 6 Gene ontology terms.xlsx
7. Pathway signalling enrichment from KEGG and Wikipathway. Data 7 KEGG Wikipathway.xls
8. Lookup overlap GWAS catalogue FUMAGWAS and enrichr dbGAP. Data 8 Overlab GWAS Catalogue.xlsx
9. Look-up of dmCpGs in EWAS Atlas for overlap of known traits $p < 0.05$ Data 9 Overlap EWASatlas.xlsx
10. Lookup SNP methylation interaction for meQTL from goDMC and meQTL EPIC database at $p > 0.05$. Data 10A meQTL goDMC.xlsx and Data 10B meQTL EPIC Database.xlsx
11. Lookup imprintome: Data 11 imprinted gene and metastable epialleles.xlsx
12. Association Offspring health outcome.
 - a. Data 12A BMI.xlsx
 - b. Data 12B Asthma.xlsx
 - c. Data 12C Lung function.xlsx
13. Association Offspring BMI and body silhouette: Data 13 offspring BMI and body silhouette.xlsx
14. Lookup of overlap of obesity related gene : Data 14 Obesity related dmCpG Open Targets and DisGeNET.xlsx

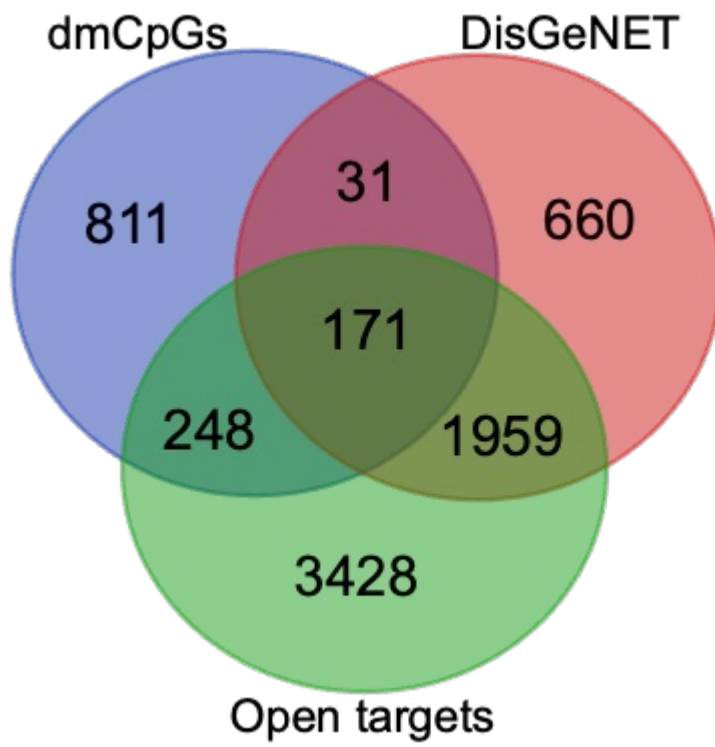
Supplementary Figures



Supplemental Fig. 1 Body silhouettes in scale 1: 9.



Supplemental Fig. 2 Shared dmCpGs between EWAS of offspring current BMI (red), EWAS of offspring current body silhouette (green) and 1962 unique dmCpGs associated with father body silhouette.



Supplemental Fig. 3: Shared obesity-related genes between RHINESSA EWAS genes (dmCpGs), Open target and DisGeNET database.