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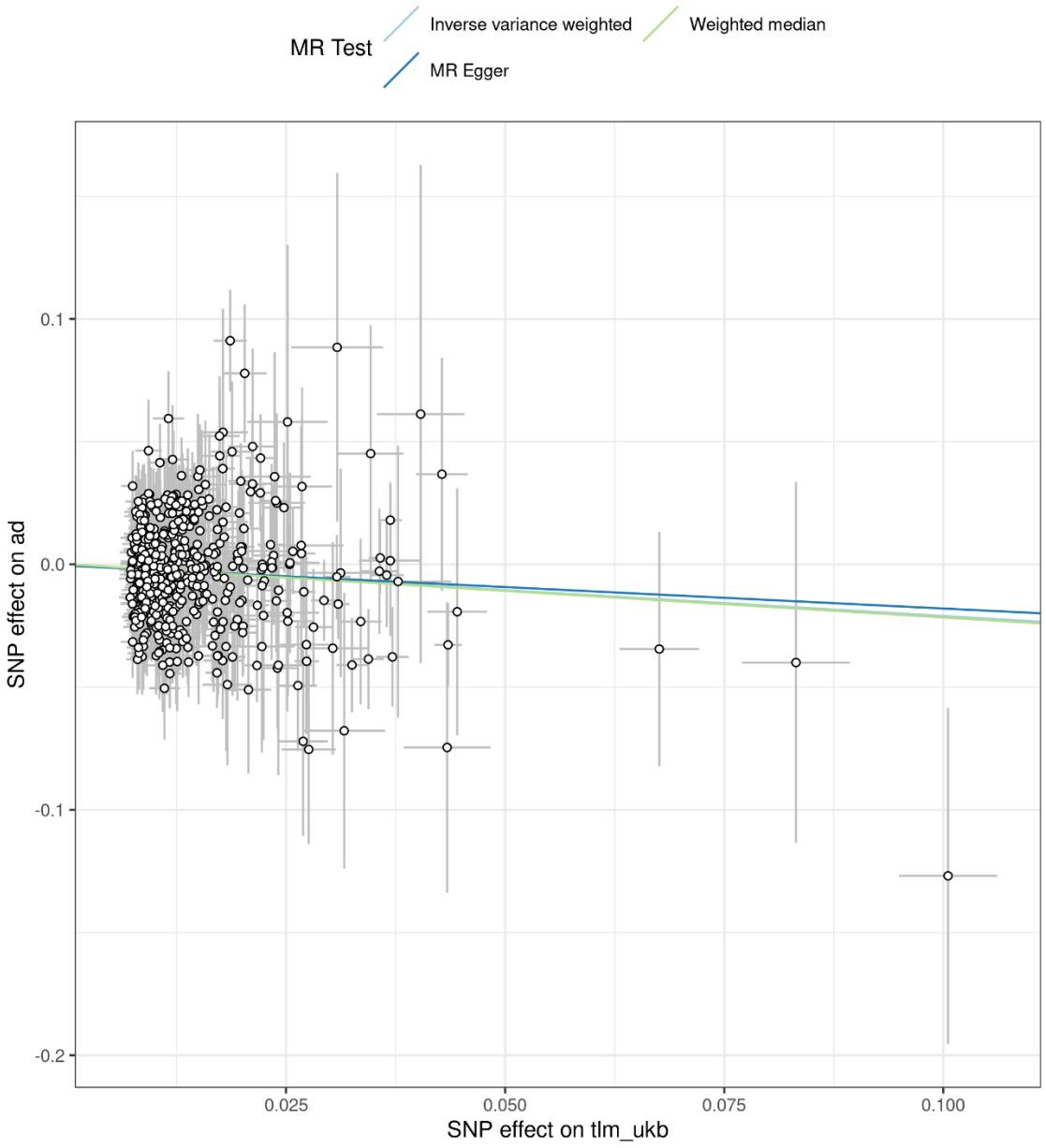
Supplementary Figure 9. Scatter plot for univariable MR analysis of total lean mass ($TLM_{residual}$) on Alzheimer's disease (AD).

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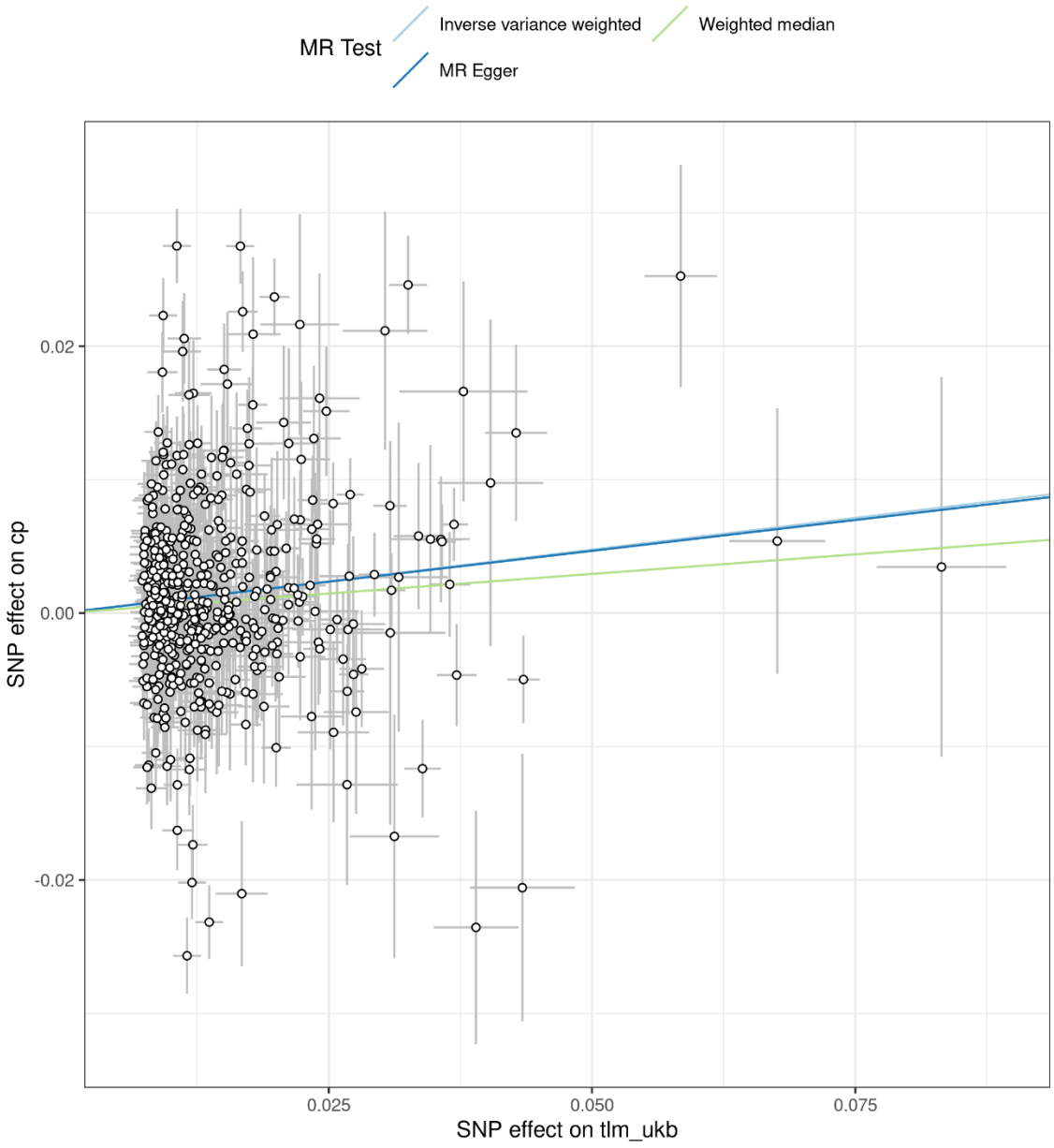
Supplementary Table 1. Baseline characteristics of UK Biobank participants included in adjusted genome-wide association studies for total lean mass (N=297,908). Continuous variables are summarized as mean ± standard deviation or median (interquartile range). Categorical variables are summarized as N (%).

	Participants (N=297,908)
Age at blood draw, y	56.74 ± 7.97
Female, N	160,077 (53.73%)
Body mass index, kg/m^2	27.36 ± 4.75
Height, cm	168.89 ± 9.23
Appendicular lean mass, kg	23.78 ± 5.64
Total lean mass, kg	53.52 ± 11.53
Blood pressure, mmHg	
Systolic blood pressure	139.99 ± 19.66
Diastolic blood pressure	82.21 ± 10.66
Smoking status, N	
Never	162,575 (54.57%)
Previous	104,274 (35.00%)
Current	30,066 (10.09%)
Diabetes Mellitus	22,563 (7.57%)
Medication use, N	
Cholesterol-lowering medication	32,733 (10.98%)
Antihypertensive medication	30,562 (10.25%)
Blood biochemistry	
Glycated haemoglobin (HbA1c, %)	35.90 (6.40)
Total cholesterol (mmol/L)	4.58 ± 0.93
LDL cholesterol (mmol/L)	1.71 ± 0.43
HDL cholesterol (mmol/L)	1.30 ± 0.32
Triglycerides (mmol/L)	1.48 (1.05 - 2.15)
Creatinine (umol/L)	0.06 ± 0.01

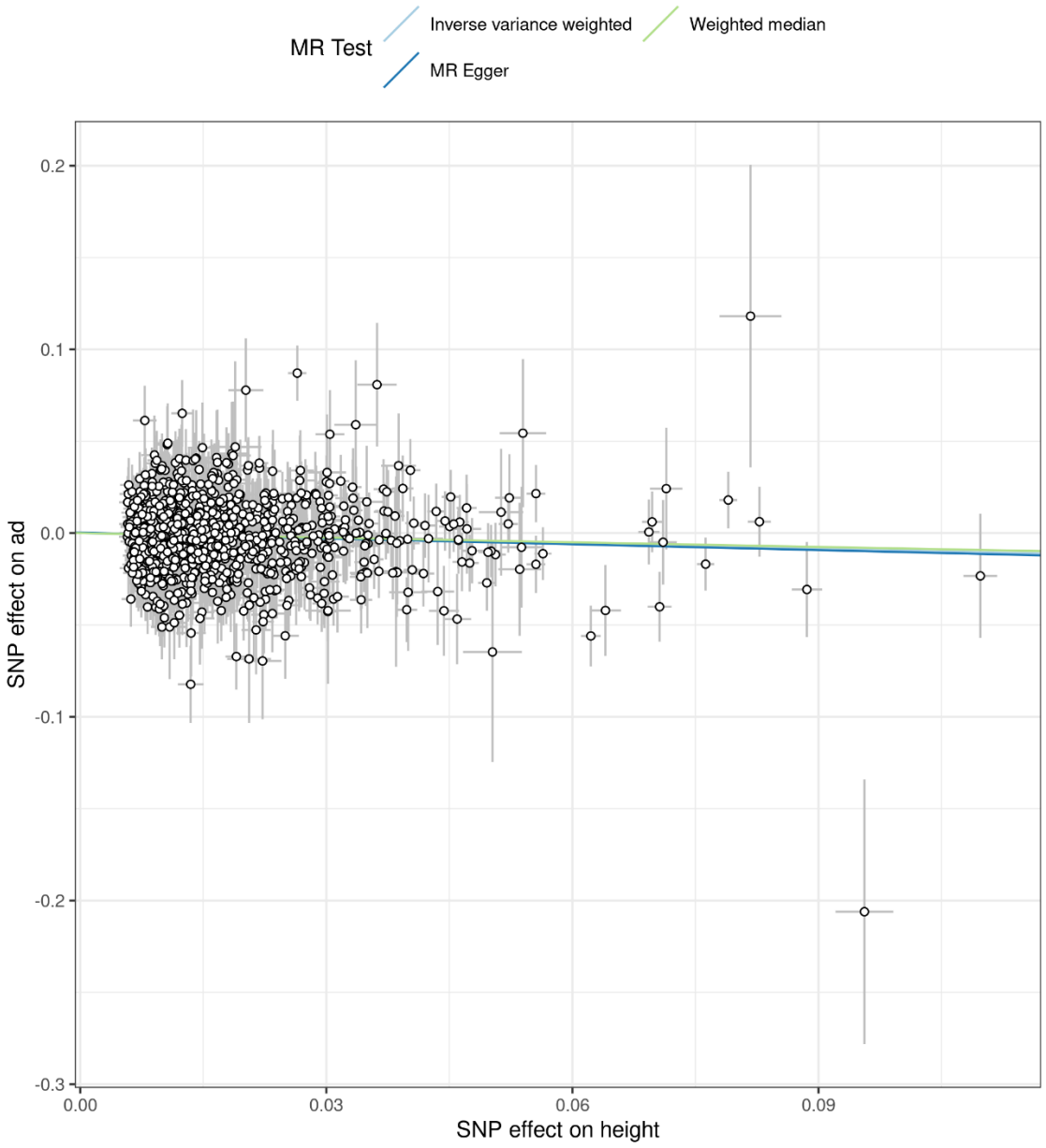
Supplementary Figure 1. Scatter plot for univariable MR analysis of total lean mass (TLM) on Alzheimer's disease (AD). Y-axis represents effects of genetic variants on AD; X-axis represents effects of genetic variants on TLM. SNP: single nucleotide polymorphism.



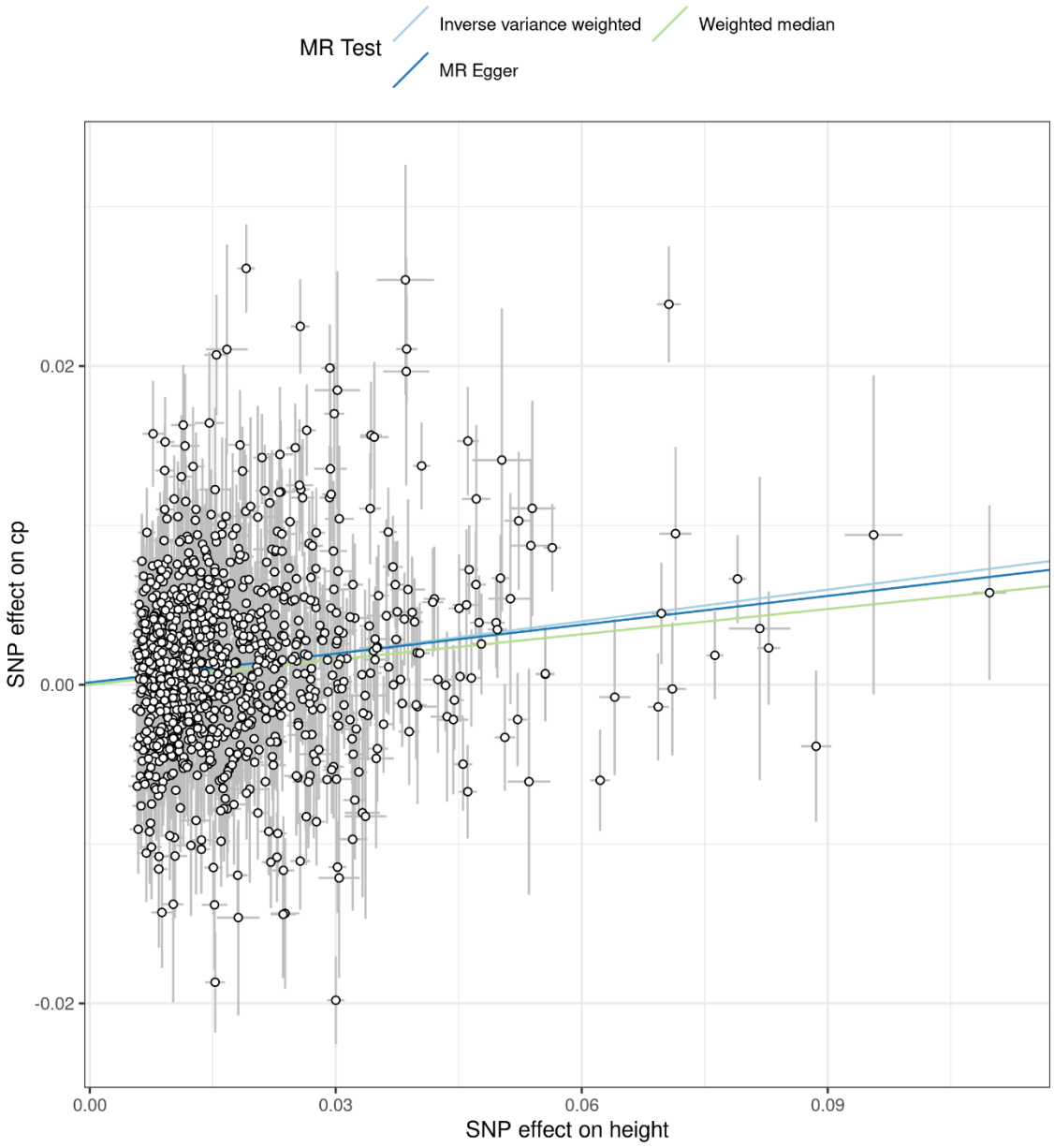
Supplementary Figure 2. Scatter plot for univariable MR analysis of total lean mass (TLM) on cognitive performance (CP). Y-axis represents effects of genetic variants on CP; X-axis represents effects of genetic variants on TLM. SNP: single nucleotide polymorphism.



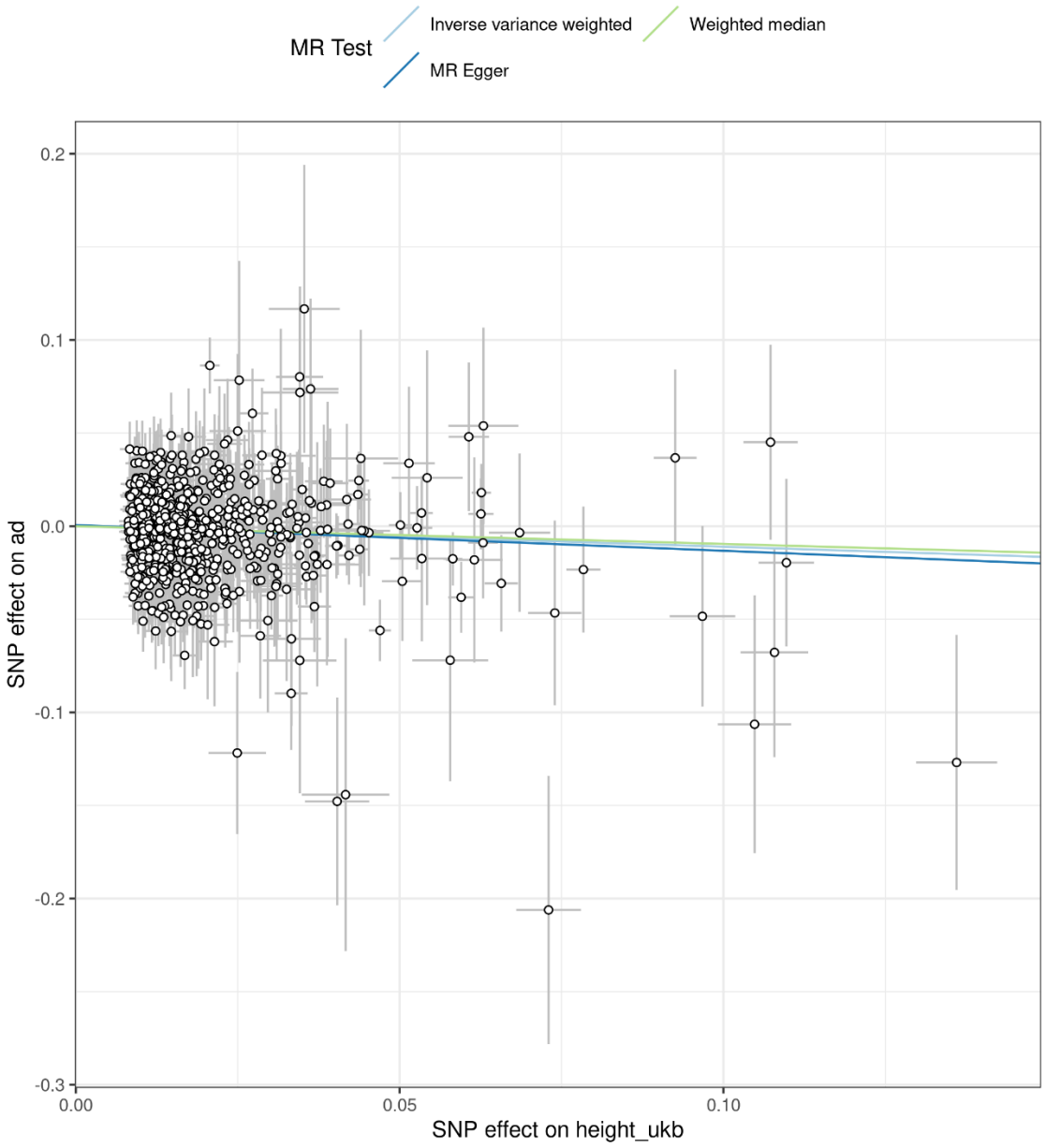
Supplementary Figure 3. Scatter plot for univariable MR analysis of height$_{1.5M}$ on Alzheimer's disease (AD). Y-axis represents effects of genetic variants on AD; X-axis represents effects of genetic variants on height$_{1.5M}$. SNP: single nucleotide polymorphism.



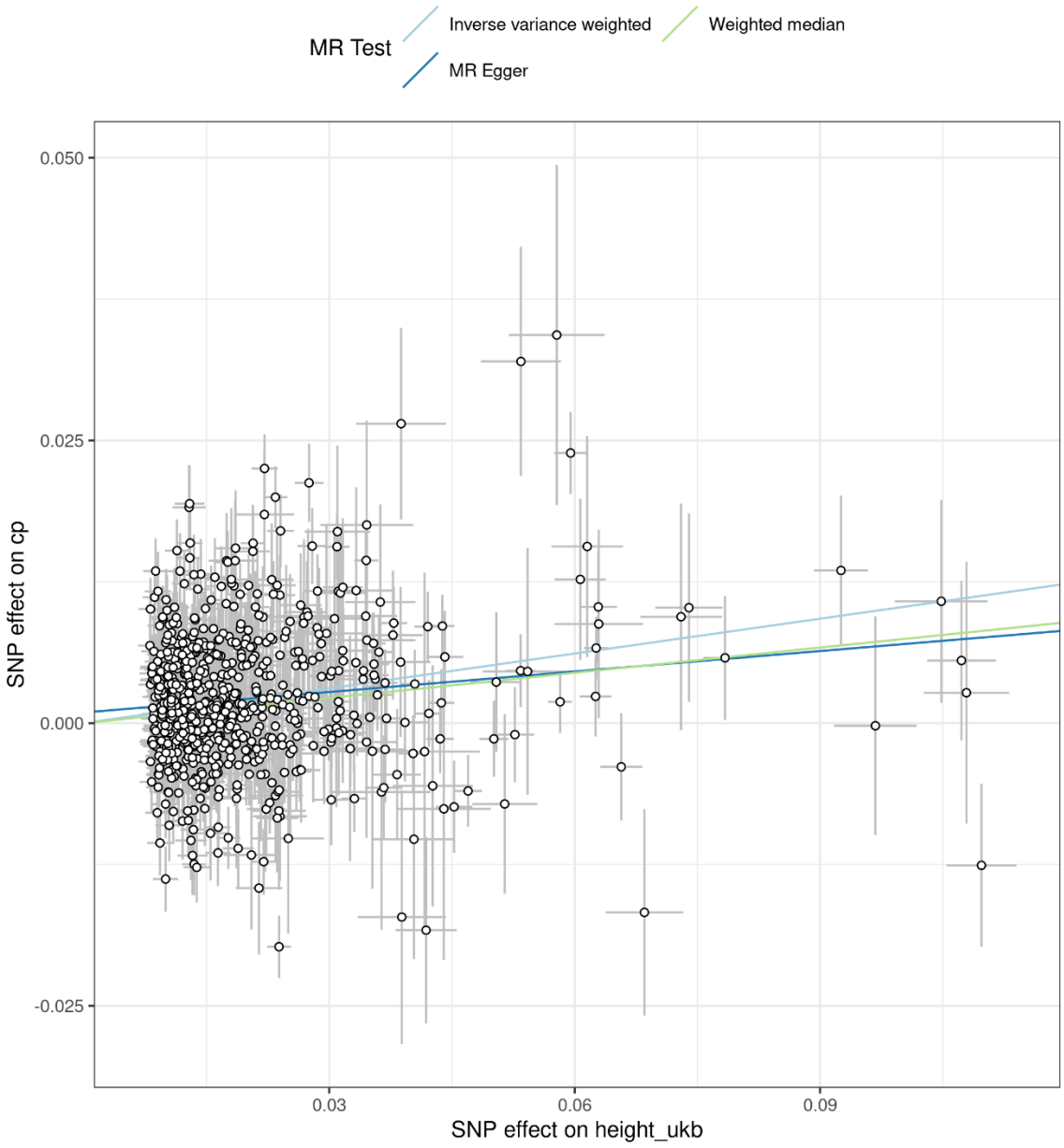
Supplementary Figure 4. Scatter plot for univariable MR analysis of height$_{1.5M}$ on cognitive performance (CP). Y-axis represents effects of genetic variants on CP; X-axis represents effects of genetic variants on height$_{1.5M}$. SNP: single nucleotide polymorphism.



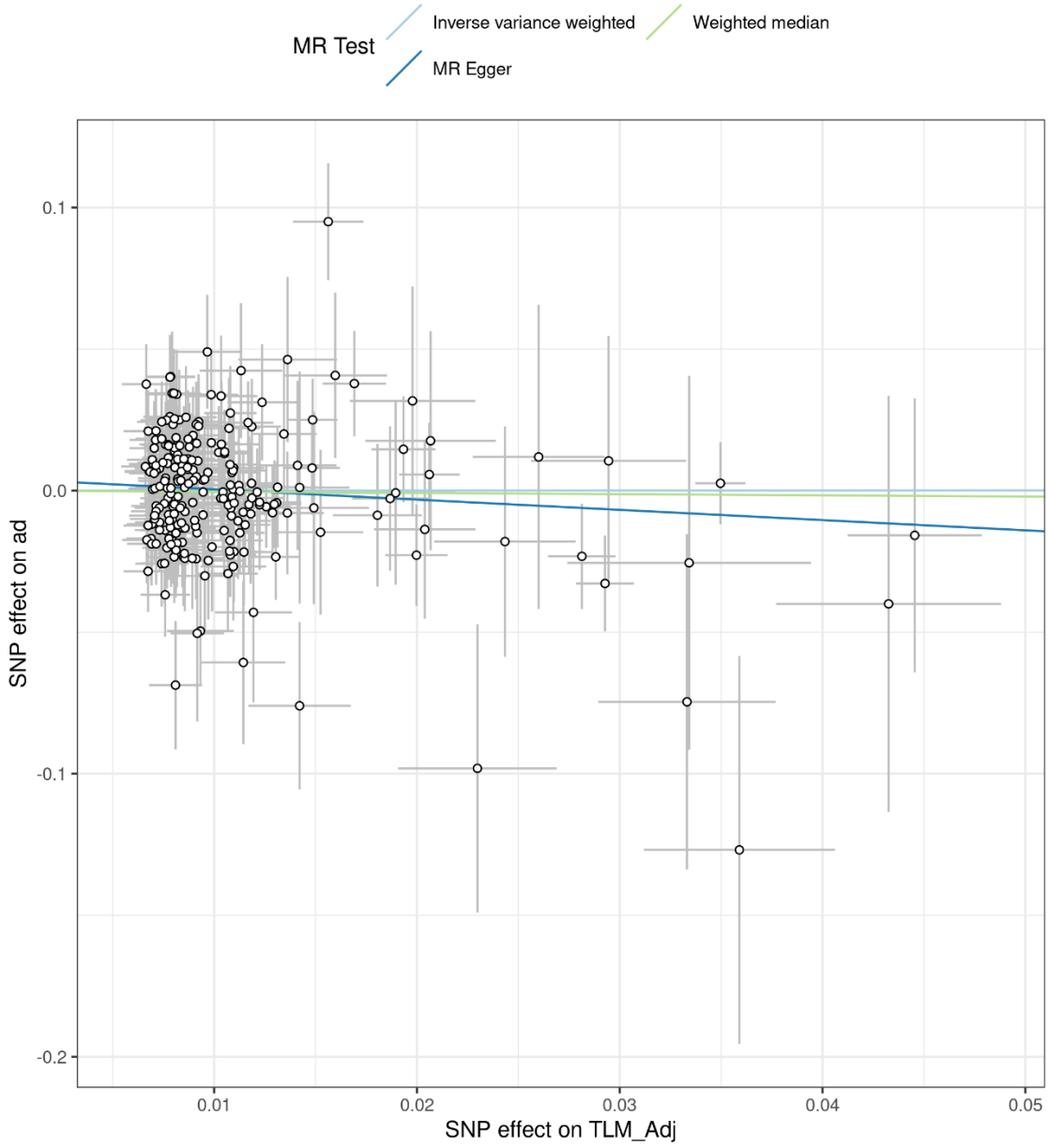
Supplementary Figure 5. Scatter plot for univariable MR analysis of height$_{0.5M}$ on Alzheimer's disease (AD). Y-axis represents effects of genetic variants on AD; X-axis represents effects of genetic variants on height$_{0.5M}$. SNP: single nucleotide polymorphism.



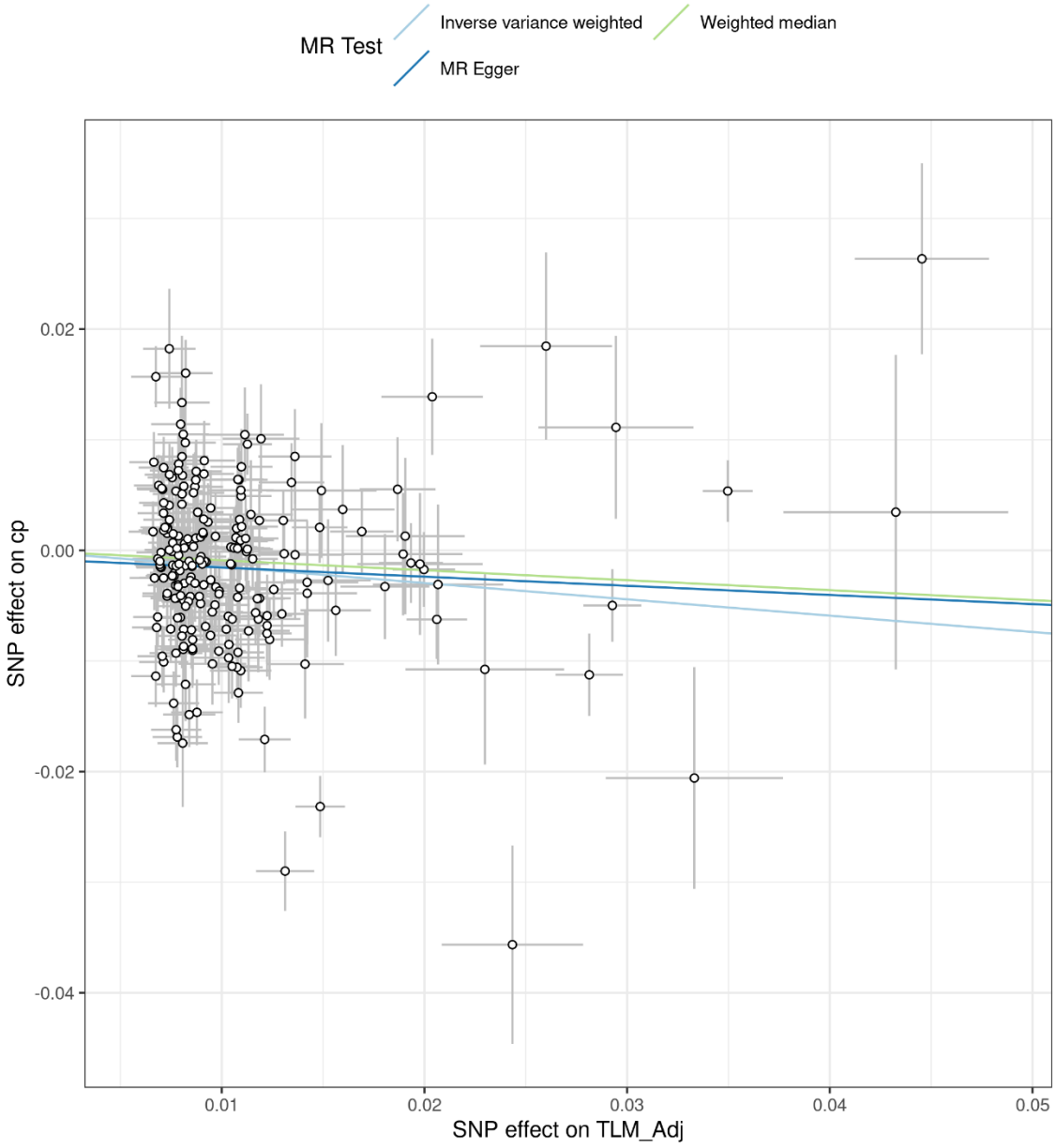
Supplementary Figure 6. Scatter plot for univariable MR analysis of $height_{0.5M}$ on cognitive performance (CP). Y-axis represents effects of genetic variants on CP; X-axis represents effects of genetic variants on $height_{0.5M}$. SNP: single nucleotide polymorphism.



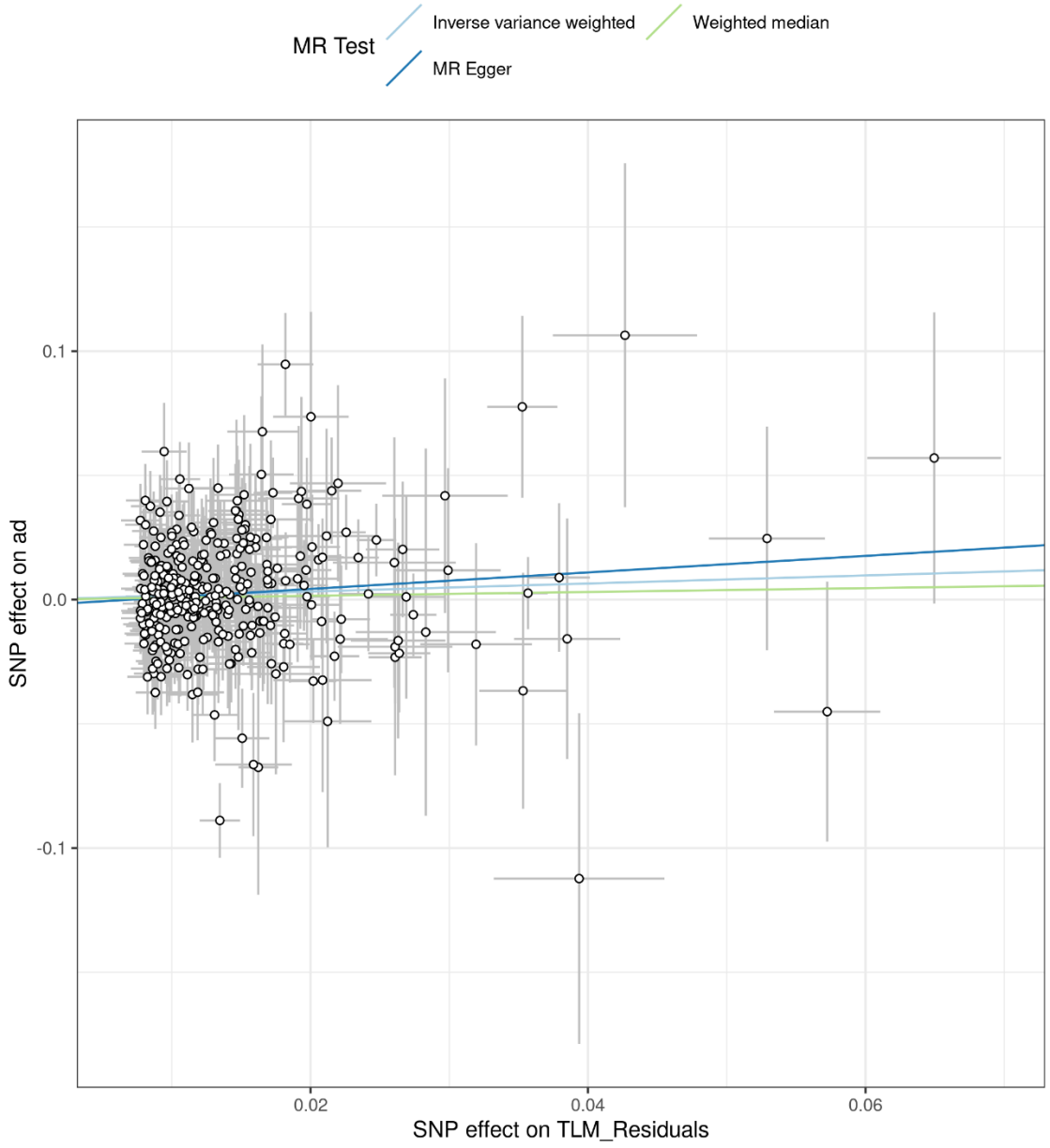
Supplementary Figure 7. Scatter plot for univariable MR analysis of total lean mass ($TLM_{covariate}$) on Alzheimer's disease (AD). Y-axis represents effects of genetic variants on AD; X-axis represents effects of genetic variants on $TLM_{covariate}$. SNP: single nucleotide polymorphism.



Supplementary Figure 8. Scatter plot for univariable MR analysis of total lean mass ($TLM_{covariate}$) on cognitive performance (CP). Y-axis represents effects of genetic variants on CP; X-axis represents effects of genetic variants on $TLM_{covariate}$. SNP: single nucleotide polymorphism.



Supplementary Figure 9. Scatter plot for univariable MR analysis of total lean mass ($TLM_{residual}$) on Alzheimer's disease (AD). Y-axis represents effects of genetic variants on AD; X-axis represents effects of genetic variants on $TLM_{residual}$. SNP: single nucleotide polymorphism.



Supplementary Figure 10. Scatter plot for univariable MR analysis of total lean mass ($TLM_{residual}$) on cognitive performance (CP). Y-axis represents effects of genetic variants on CP; X-axis represents effects of genetic variants on $TLM_{residual}$. SNP: single nucleotide polymorphism.

