

**Title:** A Mendelian randomization study of testosterone and cognition in men

Jie Zhao,<sup>1</sup> Tai Hing Lam,<sup>1</sup> Chaoqiang Jiang,<sup>2\*</sup> Stacey S Cherny,<sup>3</sup> Bin Liu,<sup>2</sup> Kar Keung Cheng,<sup>4</sup> Weisen Zhang,<sup>2</sup> Gabriel M Leung,<sup>1</sup> C Mary Schooling<sup>1,5</sup>

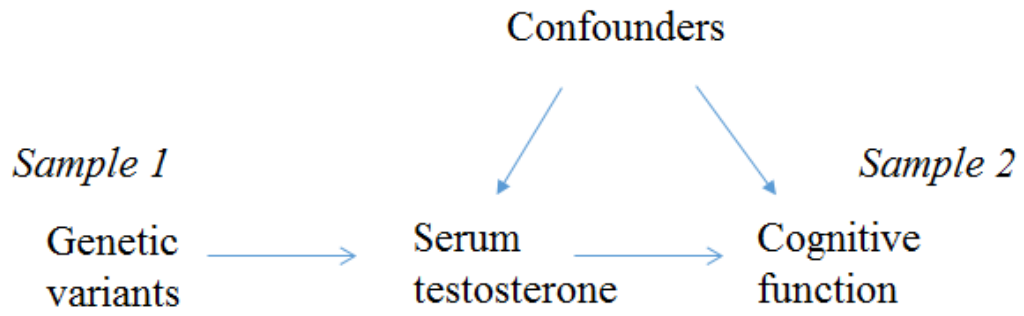
**Supplementary figure legends:**

**Supplementary Figure S1.** Separate sample instrumental variable (SSIV) analysis. Sample 1 refers to young Chinese men from Hong Kong; sample 2 refers to older men from the Guangzhou Biobank Cohort Study (GBCS).

**Supplementary Figure S2.** Flow chart for establishing the genetic prediction rule. References 1-5 are:

- (1) Olson, S.H., Bandera, E.V., Orlow, I. *Am J Epidemiol.* 165, 235-45 (2007);
- (2) Travis, R.C., et al. *Cancer Epidemiol Biomarkers Prev.* 18, 2734-44 (2009);
- (3) Sowers, M.R., Wilson, A.L., Kardia, S.R., Chu, J., Ferrell, R. *Am J Med.* 119, S23-30 (2006);
- (4) Ahn, J., et al. *Hum Mol Genet.* 18, 3749-57 (2009);
- (5) Chen, Y.C., et al. *Cancer Epidemiol Biomarkers Prev.* 16, 1973-81(2007).

Supplementary Figure S1.



## Supplementary Figure S2.

