Description of Additional Supplementary Files

File Name: Supplementary Data 1
Description: The number of samples used per biobank listed after quality control.

File Name: Supplementary Data 2
Description: The predictive ability of the genetic instrument per index gene. The predictive ability is reflected by the F-statistic.

File Name: Supplementary Data 3
Description: Directed associations between genes without correcting the analysis for LD and pleiotropy.

File Name: Supplementary Data 4
Description: *Cis*-eQTLs for those index genes that also show a *trans*-eQTL effect in a recent study.

File Name: Supplementary Data 5
Description: Directly testing for a mediated effect of the index gene genetic instrument (GI) on target gene expression, where the effect is mediated by index gene expression.

File Name: Supplementary Data 6
Description: Results of the enrichment tests using GO-terms. This dataset contains both the enrichment tests performed on the directed associations found without, and with correction for LD and pleiotropy.

File Name: Supplementary Data 7
Description: Index gene-target gene pairs identified in our data that are known from different studies.

File Name: Supplementary Data 8
Description: Directed associations between genes while correcting the analysis for LD and pleiotropy.