

## **Description of Additional Supplementary Files**

### Supplementary Data 1

Summary of RNA-Seq and alignments.

### Supplementary Data 2

Variance components and significance tests (P value adjusted using BenjaminiHochberg approach).

### Supplementary Data 3

Gene set enrichment analysis (GSEA) of genetic decanalization and canalization (P value adjusted using Benjamini-Hochberg approach).

### Supplementary Data 4

Gene set enrichment analysis (GSEA) of genotype by environment interaction (P value adjusted using Benjamini-Hochberg approach).

### Supplementary Data 5

eQTL mapping and model selection results.

### Supplementary Data 6

GO enrichment in module 1 of the female co-expression network (P value adjusted using Benjamini-Hochberg approach).

### Supplementary Data 7

Network preservation statistics using the NetRep package in R. Supplementary Data 8. Comparison of GxE genes in this study (males) with genes in other studies.