Description of Additional Supplementary Files

**Supplementary Data 1**
Study design, sample size, and data quality control, phenotype descriptive statistics, genotyping methods, quality control of SNPs, imputation, and statistical analysis for the contributing studies.

**Supplementary Data 2**
Sex-combined, sex-specific and sex-dimorphic meta-analysis results for 36 established FG variants. The \(-\log_{10} P\) values obtained from Cochran’s Q-test are also shown.

**Supplementary Data 3**
Sex-combined, sex-specific and sex-dimorphic meta-analysis results for 19 established FI variants. The \(-\log_{10} P\) values obtained from Cochran’s Q-test are also shown.

**Supplementary Data 4**
Look-up of novel SNPs (lead or proxy) from sex-combined meta-analysis in a previous MAGIC meta-analysis.

**Supplementary Data 5**
Genetic correlations between FI and 201 traits available in the LDhub.

**Supplementary Data 6**
Genetic correlations between FG and 201 traits available in the LDhub.

**Supplementary Data 7**
SNPs used for the WHR instrument in the Mendelian Randomization analysis of WHR-FI relationship in women and men.

**Supplementary Data 8**
Results of the bi-directional, sex-specific MR analyses.

**Supplementary Data 9**
Whole blood RNA expression data for known and novel genes with evidence of sex heterogeneity.

**Supplementary Data 10A**
Variants at FG/FI loci used to investigate on sex-specific/-dimorphic gene expression in a range of tissues.

**Supplementary Data 10B**
Effects at selected FG/FI loci on sex-dimorphic gene expression in RNA expression in whole blood from 3,621 Netherlands Twin Register (NTR)/ Netherlands Study of Anxiety and Depression (NESDA) study individuals with the Affymetrix U219 array data.

**Supplementary Data 10C**
Effects at FG/FI loci on sex-dimorphic gene expression in gluteal and abdominal fat from MolOBB study.

**Supplementary Data 10D**
Effects at FG/FI loci on gene expression in lymphoblastoid cell lines (LCL) from HapMap 2 individuals.

**Supplementary Data 10E**
Effects at FG/FI loci on gene expression in liver, heart, aorta adventitia/intima media and mammary artery intima-media from the Advanced Study of Aortic Pathology (ASAP) dataset.

**Supplementary Data 10F**
Effects at FG/FI loci on gene expression \((P<0.05)\) in islets of individuals with IGT compared to those with normal glucose tolerance.
Supplementary Data 10G
Effects at FG/FI loci on gene expression in fat, LCLs, and skin tissues from women analysed on MuTHER consortium dataset.