Description of Additional Supplementary Files

**File Name:** Supplementary Data 1

**Description:** The first tab contains information of 24 GWAS summary datasets (Trait, sample size, ancestry, PubMed ID, and download link). Tab 2-25 contains association studies results that we obtained using our method, SUMMIT.

**File Name:** Supplementary Data 2

**Description:** It contains a list of "silver standard" genes for each of the 24 traits used in our real data analyses.