

## Description of Additional Supplementary Files

**File Name:** Supplementary Data 1

**Description:** P value thresholds for genome-wide significance for variants in different annotations classes

**File Name:** Supplementary Data 2

**Description:** Association results for variants reaching genome-wide significance in meta-analysis of leiomyoma

**File Name:** Supplementary Data 3

**Description:** Association results for 21 lead variants in meta-analysis of Icelandic and UK GWAS' of leiomyoma with summary of variants reported for other phenotypes at the loci.

**File Name:** Supplementary Data 4

**Description:** Association results for variants with P value  $< 5 \times 10^{-8}$  in meta-analysis of leiomyoma

**File Name:** Supplementary Data 5

**Description:** Phenotypes tested for association with lead SNPs

**File Name:** Supplementary Data 6

**Description:** Association of leiomyoma risk variants with cancer and hormone-related traits in Iceland

**File Name:** Supplementary Data 7

**Description:** Association of leiomyoma with reported endometriosis variants

**File Name:** Supplementary Data 8

**Description:** Association results for variants correlated with rs7913069 (OBFC1 locus) in the Japanese population

**File Name:** Supplementary Data 9

**Description:** Association results for leiomyoma variants in a meta-analysis of endometrial cancer in the Icelandic and UKB populations.

**File Name:** Supplementary Data 10

**Description:** Association between reported endometrial cancer variants and meta-analysis of leiomyoma

**File Name:** Supplementary Data 11

**Description:** Summary of functional annotation of the 14 non-coding leiomyoma risk loci