

Table S1. Trait descriptions from our study of mammographic density

| Trait | Description | N | h ² |
|---------------------|------------------------------------------------------------------------------|-------|----------------|
| BMI | Body Mass Index (kg/m ²) | 1,481 | 0.48 |
| Body Fat | Percent body fat | 1,109 | 0.52 |
| Height | Height (cm) | 1,481 | 0.94 |
| Hip | Hip circumference (cm) | 1,481 | 0.21 |
| Waist | Waist circumference (cm) | 1,481 | 0.52 |
| Weight | Weight (kg) | 1,481 | 0.57 |
| WHR | waist circumference/ hip circumference | 1,481 | 0.54 |
| Age at Menarche | Age at first menstrual period | 1,479 | 0.54 |
| Age 1st Pregnancy | Age at first child | 1,349 | 0.25 |
| Live Birth No. | Number of live births | 1,355 | 0.40 |
| Nat Age at Meno | Age at natural menopause | 671 | 0.42 |
| Dense Area | Dense breast area (cm ²) | 1,481 | 0.49 |
| Nondense Area | Non-dense breast area (cm ²) | 1,481 | 0.70 |
| Percent Density | Percent density = dense area/total area * 100 | 1,481 | 0.45 |
| Total Area | Total breast area (cm ²) | 1,481 | 0.75 |
| Estradiol-post | Estradiol (pg/mL) in postmenopausal women | 752 | 0.35 |
| Free Estradiol-post | Estradiol indexed for SHBG in postmenopausal women | 752 | 0.28 |
| Free Estradiol-pre | Estradiol indexed for SHBG in premenopausal women | 728 | 0.34 |
| Free Testo-post | Testosterone indexed for SHBG in postmenopausal women | 752 | 0.50 |
| Free Testo-pre | Testosterone indexed for SHBG in premenopausal women | 728 | 0.72 |
| IGF1-post | Insulin-like growth factor 1 (ng/mL) in postmenopausal women | 546 | 0.77 |
| IGF1-pre | Insulin-like growth factor 1 (ng/mL) in premenopausal women | 477 | 0.60 |
| IGF1/IGFBP3-post | IGF1/IGFBP3 in postmenopausal women | 546 | 0.74 |
| IGF1/IGFBP3-pre | IGF1/IGFBP3 in premenopausal women | 477 | 0.31 |
| IGFBP3-post | Insulin-like growth factor binding protein 3 (ng/dL) in postmenopausal women | 547 | 0.60 |
| IGFBP3-pre | Insulin-like growth factor binding protein 3 (ng/dL) in premenopausal women | 477 | 0.69 |
| MMP1-post | MMP-1 measured in serum in postmenopausal women | 693 | 0.55 |
| MMP1-pre | MMP-1 measured in serum in premenopausal women | 668 | 0.87 |
| Prolactin-post | Prolactin (ng/mL) in postmenopausal women | 752 | 0.26 |
| Prolactin-pre | Prolactin (ng/mL) in premenopausal women | 728 | 0.24 |

| | | | |
|-------------------|---------------------------------------------------------------|-----|------|
| Progesterone-pre | Progesterone (ng/mL) in premenopausal women | 728 | 0.35 |
| SHBG-post | Steroid hormone binding globulin (nM) in postmenopausal women | 752 | 0.33 |
| SHBG-pre | Steroid hormone binding globulin (nM) in premenopausal women | 728 | 0.70 |
| Testosterone-post | Testosterone (ng/dL) in postmenopausal women | 752 | 0.50 |
| Testosterone-pre | Testosterone (ng/dL) in premenopausal women | 728 | 0.55 |

Note – h^2 is the narrow sense heritability of each trait after adjusting for age and menopausal status, and for the hormones and growth factors, after standardizing by batch, adjusting for age, and stratifying analyses by menopausal status; h^2 was significantly different from 0 ($p \leq 0.05$) for all traits except estradiol in premenopausal women and progesterone in postmenopausal women