**S6 Table.** Case enrichment in breast and prostate cancer PRS top 10% versus bottom 90% for three alternative PRS methods.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| GWAS Trait / Outcome | AncestryGroup | CTPRS(C+T) | LSPRS(Lassosum) | LPPRS(LDpred) |
| **OR Top 10%****(95% CI)** | **P** | **OR Top 10%****(95% CI)** | **P** | **OR Top 10%****(95% CI)** | **P** |
| OverallBreastCancer | EUR | 2.45(2.34, 2.55) | 2.81e-363 | 2.63(2.52, 2.75) | 7.35e-437 | 2.56(2.45, 2.67) | 2.5e-392 |
| SAS | 2.03(1.32, 3.13) | 0.00137 | 2.55(1.71, 3.80) | 4.33E-06 | 2.3(1.52, 3.46) | 7.11E-05 |
| AFR | 1.98(1.21, 3.22) | 0.00621 | 2.28(1.44, 3.63) | 0.000482 | 2.40(1.51, 3.82) | 0.000225 |
| EAS | 2.53(1.22, 5.27) | 0.0131 | 3.17(1.59, 6.33) | 0.00105 | 3.03(1.52, 6.03) | 0.00165 |
| ProstateCancer | EUR | 3.52(3.32, 3.73) | 3.12e-388 | 3.76(3.55, 3.98) | 2.67e-441 | 3.56(3.36, 3.77) | 3.48e-401 |
| SAS | 2.77(1.43, 5.36) | 0.00257 | 2.97(1.58, 5.57) | 0.000711 | 5.12(2.88, 9.10) | 2.62E-08 |
| AFR | 1.19(0.68, 2.09) | 0.532 | 2.08(1.31, 3.30) | 0.00197 | 1.69(1.04, 2.75) | 0.0329 |
| EAS | 2.59(0.49, 13.8) | 0.265 | 2.60(0.49, 13.8) | 0.262 | 8.23(2.00, 33.8) | 0.00348 |

Abbreviations: PRS, polygenic risk score; AFR, African; EAS, East Asian; EUR, European, SAS, South Asian