

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1

Description: Pairwise LD between genetic variants independently associated with PCa risk in the current study and previously published PCa risk variants at 8q24.

File Name: Supplementary Data 2

Description: Variants in the 95% credible set and correlated variants.

File Name: Supplementary Data 3

Description: Functional annotation for variants in the 95% credible set and correlated variants.

File Name: Supplementary Data 4

Description: Proportion of familial relative risk (FRR) explained by the 175 established PCa susceptibility loci including the 12 risk variants at 8q24.