

## **Description of Additional supplementary files**

**Supplementary Data 1:** List of Genes from the Cancer Gene Census in the Catalogue of Somatic Mutations in Cancer (COSMIC) Database.

**Supplementary Data 2:** Functional Germline Variants in Cancer Predisposition Genes in the SMC Cohort.

**Supplementary Data 3:** Functional Germline Variants in Cancer Predisposition Genes in the TARGET Cohort.

**Supplementary Data 4:** List of Eighty Core Genes Involved in DNA Damage Repair Gene