Supplementary Note

Supplementary Figures

Supplementary Figure 1. Comparison of ancestry-specific ORs between European and African, Asian, and Hispanic populations.

Supplementary Figure 2. Sankey diagram of GRS risk categorization based on $GRS_{100}$, $GRS_{181}$, $GRS_{269}$, and $GRS_{451}$ in the multi-ancestry sample.

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Additional Acknowledgements
Supplementary Figures

Supplementary Figure 1. Comparison of ancestry-specific ORs between European and African, Asian, and Hispanic populations, respectively. Variants present in both populations are compared; the number of variants is denoted in the lower right corner. Genome-wide significant variants among African, Asian, or Hispanic populations are highlighted in orange. The Pearson’s correlation coefficient between effect sizes and corresponding p-value are denoted in the upper left in each sub-panel.
**Supplementary Figure 2.** Sankey diagram of GRS risk categorization based on GRS\(_{100}\), GRS\(_{181}\), GRS\(_{269}\), and GRS\(_{451}\) in the multi-ancestry sample. (a) GRS quantiles in all controls; (b) GRS quantiles in all cases. Percentage of individuals in each GRS quantile are labelled in corresponding boxes. Percentage of controls that remain in the lowest quintile [0%, 20%] and highest quintile (80%, 100%) from a previous to a more current GRS are indicated on corresponding flows in (a). In (b), the highest GRS quintile contains 51.2% of the cases.
Supplementary Figure 3. Sankey diagram of GRS risk categorization based on GRS$_{100}$, GRS$_{181}$, GRS$_{269}$, and GRS$_{451}$ in the European ancestry sample. (a) GRS quantiles in all controls; (b) GRS quantiles in all cases.
Supplementary Figure 4. Sankey diagram of GRS risk categorization based on GRS\(_{100}\), GRS\(_{181}\), GRS\(_{269}\), and GRS\(_{451}\) in the African ancestry sample. (a) GRS quantiles in all controls; (b) GRS quantiles in all cases.
Supplementary Figure 5. Sankey diagram of GRS risk categorization based on GRS$_{100}$, GRS$_{181}$, GRS$_{269}$, and GRS$_{451}$ in the Asian ancestry sample. (a) GRS quantiles in all controls; (b) GRS quantiles in all cases.
**Supplementary Figure 6.** Sankey diagram of GRS risk categorization based on GRS\textsubscript{100}, GRS\textsubscript{181}, GRS\textsubscript{269}, and GRS\textsubscript{451} in the Hispanic sample. (a) GRS quantiles in all controls; (b) GRS quantiles in all cases.
Supplementary Figure 7. Associations of GRS451 with aggressive vs. non-aggressive prostate cancer (a) by sub-study in African ancestry, ranked by percentage of African ancestry in the controls in each study; (b) by continent in African ancestry.
Acknowledgements

CRUK and PRACTICAL consortium

This work was supported by the Canadian Institutes of Health Research, European Commission's Seventh Framework Programme grant agreement n° 223175 (HEALTH-F2-2009-223175), Cancer Research UK Grants C5047/A7357, C1287/A10118, C1287/A16563, C5047/A3354, C5047/A10692, C16913/A6135, and The National Institute of Health (NIH) Cancer Post-Cancer GWAS initiative grant: No. 1 U19 CA 148537-01 (the GAME-ON initiative).

We would also like to thank the following for funding support: The Institute of Cancer Research and The Everyman Campaign, The Prostate Cancer Research Foundation, Prostate Research Campaign UK (now Prostate Action), The Orchid Cancer Appeal, The National Cancer Research Network UK, The National Cancer Research Institute (NCRI) UK. We are grateful for support of NIHR funding to the NIHR Biomedical Research Centre at The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust.

The Prostate Cancer Program of Cancer Council Victoria also acknowledge grant support from The National Health and Medical Research Council, Australia (126402, 209057, 251533, 396414, 450104, 504700, 504702, 504715, 623204, 940394, 614296,), VicHealth, Cancer Council Victoria, The Prostate Cancer Foundation of Australia, The Whitten Foundation, PricewaterhouseCoopers, and Tattersall's.

Genotyping of the OncoArray was funded by the US National Institutes of Health (NIH) [U19 CA 148537 for ELucidating Loci Involved in Prostate cancer SuscEptibility]
(ELLIPSE) project and X01HG007492 to the Center for Inherited Disease Research (CIDR) under contract number HHSN268201200008I].

This study would not have been possible without the contributions of the following: Coordination team, bioinformatician and genotyping centers (CCGE, Cambridge).

Funding for the iCOGS infrastructure came from: the European Community's Seventh Framework Programme under grant agreement n° 223175 (HEALTH-F2-2009-223175) (COGS), Cancer Research UK (C1287/A10118, C1287/A 10710, C12292/A11174, C1281/A12014, C5047/A8384, C5047/A15007, C5047/A10692, C8197/A16565), the National Institutes of Health (CA128978) and Post-Cancer GWAS initiative (1U19 CA148537, 1U19 CA148065 and 1U19 CA148112 - the GAME-ON initiative), the Department of Defence (W81XWH-10-1-0341), the Canadian Institutes of Health Research (CIHR) for the CIHR Team in Familial Risks of Breast Cancer, Komen Foundation for the Cure, the Breast Cancer Research Foundation, and the Ovarian Cancer Research Fund.

BPC3
The BPC3 was supported by the U.S. National Institutes of Health, National Cancer Institute (cooperative agreements U01-CA98233, U01-CA98710, U01-CA98216 and U01-CA98758 and Intramural Research Program of NIH/National Cancer Institute, Division of Cancer Epidemiology and Genetics).

CAPS
CAPS GWAS study was supported by the Cancer Risk Prediction Center (CRisP; www.crispcenter.org), a Linneus Centre (Contract ID 70867902) financed by the Swedish Research Council, (grant no K2010-70X-20430-04-3), the Swedish Cancer Foundation (grant no 09-0677), the Hedlund Foundation, the Soederberg Foundation, the Enqvist Foundation, ALF funds from the Stockholm County Council, Stiftelsen Johanna Hagstrand och Sigfrid Linner’s Minne, and Karlsson’s Fund for urological and surgical research.

PEGASUS

PEGASUS was supported by the Intramural Research Program, Division of Cancer Epidemiology and Genetics, National Cancer Institute, National Institutes of Health.

AFEDS

The African American Eye Disease Study (AFEDS) was funded by the National Eye Institute, National Institutes of Health grant EY023575.

Additional funding and acknowledgments from studies in PRACTICAL:

Aarhus

This study was supported by Innovation Fund Denmark, the Danish Cancer Society and The Velux Foundation (Veluxfonden). The Danish Cancer Biobank (DCB) is acknowledged for biological material.

AHS
This work was supported by the Intramural Research Program of the NIH, National Cancer Institute, Division of Cancer Epidemiology and Genetics (Z01CP010119).

**APCB**

The Australian Prostate Cancer BioResource (APCB) was supported by The National Health and Medical Research Council, Enabling Grant [614296] and the Prostate Cancer Foundation of Australia. The Australian Prostate Cancer BioResource (APCB) would like to acknowledge and sincerely thank the urologists, pathologists, coordinators, data managers, nurses and patient participants who have generously and altruistically supported the APCB.

**ATBC**

The ATBC Study is supported by the Intramural Research Program of the U.S. National Cancer Institute, National Institutes of Health, Department of Health and Human Services.

**BBJ**

The prostate cancer GWAS in BBJ was supported by the Ministry of Education, Culture, Sports, Sciences and Technology of the Japanese government (MEXT)/Japan Society for the Promotion of Science (JSPS) (KAKENHI Grant Number JP20H00462) and the Japan Agency for Medical Research and Development (AMED, under Grant Number JP21ck0106642 and JP21tm0424220).
BioVU

The dataset(s) used for the analyses described were obtained from Vanderbilt University Medical Center’s BioVU which is supported by institutional funding and by the National Center for Research Resources, Grant UL1 RR024975-01 (which is now at the National Center for Advancing Translational Sciences, Grant 2 UL1 TR000445-06).

Canary PASS

PASS was supported by Canary Foundation and the National Cancer Institute's Early Detection Research Network (U01 CA086402)

CaP Genes

CaP Genes was supported by CA88164 and CA127298.

CCI

This work was awarded by Prostate Cancer Canada and is proudly funded by the Movember Foundation - Grant # D2013-36.

CHIPGECS

Orchid, Wuxi Second Hospital Research Funds, National Natural Science foundation of China for funding support (Grant No: 30671793 and 81072377), (Grant No: 81272831), (Grant No: 81072092 and 81328017), Liaoning Natural Science Foundation 2017, China, Item Number: 20170540536. This work was conducted on behalf of the
CHIPGECS Consortia. We acknowledge the contribution of doctors, nurses and postgraduate research students at the CHIPGENCS sample collecting centers.

**COH**
Support was provided by the Morris and Horowitz Families Endowed Professorship.

**COSM**
COSM is funded by The Swedish Research Council (grant for the Swedish Infrastructure for Medical Population-based Life-course Environmental Research – SIMPLER), the Swedish Cancer Foundation.

**CPCS1 & CPCS2**
Department of Clinical Biochemistry, Herlev and Gentofte Hospital, Copenhagen University Hospital, Herlev Ringvej 75, DK-2730 Herlev, Denmark. We thank participants and staff of the Copenhagen General Population Study for their important contributions.

**CPDR**
Uniformed Services University for the Health Sciences HU0001-10-2-0002.

**CPS-II**
The American Cancer Society funds the creation, maintenance, and updating of the Cancer Prevention Study II cohort. We thank the CPS-II participants and Study
Management Group for their invaluable contributions to this research. We would also like to acknowledge the contribution to this study from central cancer registries supported through the Centers for Disease Control and Prevention National Program of Cancer Registries, and cancer registries supported by the National Cancer Institute Surveillance Epidemiology and End Results program.

**DCPC**

DCPC was supported by NIH grant S06GM08016 and DOD grants DAMD W81XWH-07-1-0203, DAMD W81XWH-06-1-0066 and DOD W81XWH-10-1-0532.

**eMERGE**

The eMERGE Network was initiated and funded by the NHGRI through the following grants: U01HG8657 (Kaiser Washington/University of Washington); U01HG8685 (Brigham and Women’s Hospital); U01HG8672 (Vanderbilt University Medical Center); U01HG8666 (Cincinnati Children's Hospital Medical Center); U01HG6379 (Mayo Clinic); U01HG8679 (Geisinger Clinic); U01HG8680 (Columbia University Health Sciences); U01HG8684 (Children's Hospital of Philadelphia); U01HG8673 (Northwestern University); U01HG8701 (Vanderbilt University Medical Center serving as the Coordinating Center); U01HG8676 (Partners Healthcare/Broad Institute); and U01HG8664 (Baylor College of Medicine).

**EPIC**
The coordination of EPIC was financially supported by the European Commission (DG-SANCO) and the International Agency for Research on Cancer. The national cohorts (that recruited male participants) are supported by Danish Cancer Society (Denmark); German Cancer Aid, German Cancer Research Center (DKFZ), Federal Ministry of Education and Research (BMBF), Deutsche Krebshilfe, Deutsches Krebsforschungszentrum and Federal Ministry of Education and Research (Germany); the Hellenic Health Foundation (Greece); Associazione Italiana per la Ricerca sul Cancro-AIRC-Italy and National Research Council (Italy); Dutch Ministry of Public Health, Welfare and Sports (VWS), Netherlands Cancer Registry (NKR), LK Research Funds, Dutch Prevention Funds, Dutch ZON, World Cancer Research Fund (WCRF), Statistics Netherlands (The Netherlands); Health Research Fund (FIS), PI13/00061 to Granada; PI13/01162 to EPIC-Murcia), Regional Governments of Andalucía, Asturias, Basque Country, Murcia and Navarra, ISCIII RETIC (RD06/0020) (Spain); Swedish Cancer Society, Swedish Research Council and County Councils of Skåne and Västerbotten (Sweden); Cancer Research UK (14136 to EPIC-Norfolk; C8221/A29017 to EPIC-Oxford), Medical Research Council (1000143 to EPIC-Norfolk, MR/M012190/1 to EPIC-Oxford) (United Kingdom).

EPICAP

The EPICAP study was supported by grants from Ligue Nationale Contre le Cancer; Institut National du Cancer (INCa); Fondation ARC; Fondation de France; Agence Nationale de sécurité sanitaire de l’alimentation, de l’environnement et du travail
The EPICAP study group would like to thank all urologists, and clinical research nurses.

**ERSPC**
This study was supported by the Dutch Cancer Society (KWF94-869, 98-1657, 2002-277, 2006-3518, 2010-4800); The Netherlands Organisation for Health Research and Development (ZonMW-002822820, 22000106, 50-50110-98-311, 62300035), The Dutch Cancer Research Foundation (SWOP), and an unconditional grant from Beckman-Coulter-Hybritech Inc.

**EstBB**
This study was funded by European Union through the European Regional Development Fund Project No. 2014-2020.4.01.15-0012 GENTRANSMED and the Estonian Research Council grant 1911. Data analysis was carried out in part in the High-Performance Computing Center of University of Tartu.

**ESTHER**
The ESTHER study was supported by a grant from the Baden Württemberg Ministry of Science, Research and Arts.

**FHCRC**
The FHCRC studies were supported by grants R01-CA056678, R01-CA082664, and R01-CA092579 from the US National Cancer Institute, National Institutes of Health, with
additional support from the Fred Hutchinson Cancer Research Center (P30-CA015704).

We thank all the men who participated in these studies.

**FinnGen**

We want to acknowledge the participants and investigators of the FinnGen study.

**GECAP**

The GECAP study was supported by NIH grant R01-ES011126.

**Gene-PARE**

The Gene-PARE study was supported by grants 1R01CA134444 from the U.S. National Institutes of Health, PC074201 and W81XWH-15-1-0680 from the Prostate Cancer Research Program of the Department of Defense and RSGT-05-200-01-CCE from the American Cancer Society. S.L.K. is supported by 1K07CA187546 from the U.S. National Cancer Institute.

**Ghana Prostate Study (GPS)**

The Ghana Prostate Study was funded by the Intramural Program of the National Cancer Institute, National Institutes of Health, Department of Health and Human Services including Contract No. HHSN261200800001E.

**HPFS**
The Health Professionals Follow-up Study was supported by grants UM1CA167552, CA133891, CA141298, and P01CA055075. We are grateful to the participants and staff of the Physicians’ Health Study and Health Professionals Follow-Up Study for their valuable contributions, as well as the following state cancer registries for their help: AL, AZ, AR, CA, CO, CT, DE, FL, GA, ID, IL, IN, IA, KY, LA, ME, MD, MA, MI, NE, NH, NJ, NY, NC, ND, OH, OK, OR, PA, RI, SC, TN, TX, VA, WA, WY.

**IMPACT**

The IMPACT study was funded by The Ronald and Rita McAulay Foundation, CR-UK Project grant (C5047/A21332), Cancer Australia, AICR Netherlands A10-0227, Cancer Australia and Cancer Council Tasmania, NIHR, EU Framework 6, Cancer Councils of Victorial and South Australia, Philanthropic donation to Northshore University Health System. We acknowledge support from the National Institute for Health Research (NIHR) to the Biomedical Research Centre at The Institute of Cancer Research and Royal Marsden Foundation NHS Trust. We acknowledge the IMPACT study steering committee, collaborating centres and participants.

**IPCG**

IPCG was support by DOD grant W81XWH-07-1-0122.

**IPM BioMe**

The Mount Sinai BioMe Biobank has been supported by The Andrea and Charles Bronfman Philanthropies and in part by Federal funds from the NHLBI and NHGRI
We thank all participants in the Mount Sinai Biobank. We also thank all our recruiters who have assisted and continue to assist in data collection and management and are grateful for the computational resources and staff expertise provided by Scientific Computing at the Icahn School of Medicine at Mount Sinai.

**IPO-Porto**

The IPO-Porto study was funded by Fundação para a Ciência e a Tecnologia (FCT; UIDP/0076/2020, CEECINST/00091/2018, and 2021.03835.CEECIND) and by IPO-Porto Research Center (CI-IPOP-24-2015). We would like to express our gratitude to all patients and families who have participated in this study.

**KARUPROSTATE**

The Karuprostate study was supported by the the Frech National Health Directorate, the Association pour la Recherche sur le Cancer, la Ligue Nationale contre le Cancer, the French Agency for Environmental and Occupational Health Safety (ANSES) and by the Association pour la Recherche sur les Tumeurs de la Prostate.

**KULEUVEN**

This study is supported by FWO Vlaanderen (G.0684.12N and G.0830.13N), the Belgian federal government (National Cancer Plan KPC_29_023), and a Concerted Research Action of the KU Leuven (GOA/15/017).
LAAPC

This study was funded by grant R01CA84979 from the National Cancer Institute, NIH.

Malaysia

The study was funded by the University Malaya High Impact Research Grant (HIR/MOHE/MED/35 to A.R). We thank all associates in the Urology Unit, University of Malaya, Cancer Research Initiatives Foundation (CARIF) and the Malaysian Men's Health Initiative (MMHI).

MADCaP

The Men of African Descent and Carcinoma of the Prostate (MADCaP) Network was supported by large multicenter NIH grants to Timothy Rebbeck (U01CA184374 and R01-CA259200). The funders had no role in study design, data collection and analysis, interpretation of the data, decision to publish, or preparation of the manuscript.

MAYO

The Mayo group was supported by the US National Cancer Institute (R01CA72818)

MCC-Spain

The study was partially funded by the ""Accion Transversal del Cancer"", approved on the Spanish Ministry Council on the 11th October 2007, by the Instituto de Salud Carlos III-FEDER (PI08/1770, PI09/00773-Cantabria, PI11/01889-FEDER, PI12/00265, PI12/01270, PI12/00715, PI15/00069), by the Fundación Marqués de Valdecilla (API
10/09), by the Spanish Association Against Cancer (AECC) Scientific Foundation and by the Catalan Government DURSI grant 2009SGR1489. Samples: Biological samples were stored at the Parc de Salut MAR Biobank (MARBiobanc; Barcelona) which is supported by Instituto de Salud Carlos III FEDER (RD09/0076/00036). Also sample collection was supported by the Xarxa de Bancs de Tumors de Catalunya sponsored by Pla Director d'Oncologia de Catalunya (XBTC). ISGlobal acknowledges support from the Spanish Ministry of Science and Innovation through the “Centro de Excelencia Severo Ochoa 2019-2023” Program (CEX2018-000806-S), and support from the Generalitat de Catalunya through the CERCA Program. We thank all the subjects who participated in the study and all MCC-Spain collaborators.

**MCCS**

Melbourne Collaborative Cohort Study (MCCS) cohort recruitment was funded by VicHealth and Cancer Council Victoria. The MCCS was further augmented by Australian National Health and Medical Research Council grants 209057, 396414 and 1074383 and by infrastructure provided by Cancer Council Victoria. Cases and their vital status were ascertained through the Victorian Cancer Registry and the Australian Institute of Health and Welfare, including the National Death Index and the Australian Cancer Database.

**MD Anderson Prostate Cancer Case-Control Studies at MD Anderson (MDA)**

Supported by grants CA68578, ES007784, DAMD W81XWH-07-1-0645 and CA140388.
MEC

The MEC was supported by NIH grants CA63464, CA54281, CA098758, and CA164973.

MGB

The study was supported by Mass General Brigham institutional funds.

MGi

We acknowledge the Michigan Genomics Initiative participants, Precision Health at the University of Michigan, the University of Michigan Medical School Central Biorepository, and the University of Michigan Advanced Genomics Core for providing data and specimen storage, management, processing, and distribution services, and the Center for Statistical Genetics in the Department of Biostatistics at the School of Public Health for genotype data curation, imputation, and management in support of the research reported in this publication.

MVP

This research is based on data from the Million Veteran Program, Office of Research and Development, Veterans Health Administration, and was supported by award MVP017. This publication does not represent the views of the Department of Veteran Affairs or the United States Government.

MOFFITT
The Moffitt group was supported by the US National Cancer Institute (R01CA128813).

NCI-MD
This research was supported by the Intramural Research Program of the NIH, National Cancer Institute (NCI), Center for Cancer Research (ZIA BC 010499 and ZIA BC 010624)

NMHS
Funding for the Nashville Men's Health Study (NMHS) was provided by the National Institutes of Health Grant numbers: RO1CA121060

Oslo
CONOR was supported by grants from the Nordic Cancer Union, the Swedish Cancer Society (2012/823) and the Swedish Research Council (2014/2269). The authors wish to acknowledge the services of CONOR, the contributing research centers delivering data to CONOR, and all the study participants.

PCaP
The North Carolina - Louisiana Prostate Cancer Project (PCaP) is carried out as a collaborative study supported by the Department of Defense contract DAMD 17-03-2-0052. The authors thank the staff, advisory committees and research subjects participating in the PCaP study for their important contributions. We would like to acknowledge the UNC BioSpecimen Facility and the LSUHSC Pathology Lab for our
DNA extractions, blood processing, storage and sample disbursement (https://genome.unc.edu/bsp).

PCBP
PCBP was supported by NHGRI contract N01HG25487 and NCI grant R01CA114379.

PCMUS
The PCMUS study was supported by the Bulgarian National Science Fund, Ministry of Education and Science (contract DOO-119/2009; DUNK01/2-2009; DFNI-B01/28/2012) with additional support from the Science Fund of Medical University - Sofia (contract 51/2009; 81/2009; 28/2010).

PHS
The Physicians' Health Study was supported by grants CA34944, CA40360, CA097193, HL26490 and HL34595. We are grateful to the participants and staff of the Physicians' Health Study and Health Professionals Follow-Up Study for their valuable contributions, as well as the following state cancer registries for their help: AL, AZ, AR, CA, CO, CT, DE, FL, GA, ID, IL, IN, IA, KY, LA, ME, MD, MA, MI, NE, NH, NJ, NY, NC, ND, OH, OK, OR, PA, RI, SC, TN, TX, VA, WA, WY.

PLCO
This PLCO study was supported by the Intramural Research Program of the Division of Cancer Epidemiology and Genetics, National Cancer Institute, NIH and the Division of Cancer Prevention, National Cancer Institute, NIH. Cancer incidence data have been
provided by the Alabama Statewide Cancer Registry, Arizona Cancer Registry, Colorado Central Cancer Registry, District of Columbia Cancer Registry, Georgia Cancer Registry, Hawaii Cancer Registry, Cancer Data Registry of Idaho, Maryland Cancer Registry, Michigan Cancer Surveillance Program, Minnesota Cancer Surveillance System, Missouri Cancer Registry, Nevada Central Cancer Registry, Ohio Cancer Incidence Surveillance System, Pennsylvania Cancer Registry, Texas Cancer Registry, Utah Cancer Registry, Virginia Cancer Registry, and Wisconsin Cancer Reporting System. All are supported in part by funds from the Center for Disease Control and Prevention, National Program for Central Registries, local states or by the National Cancer Institute, Surveillance, Epidemiology, and End Results program. The results reported here and the conclusions derived are the sole responsibility of the authors and do not represent or imply concurrence or endorsement by NCI. We also thank the PLCO study participants for their contributions to making this study possible.

PRAGGA

PRAGGA was supported by Programa Grupos Emergentes, Cancer Genetics Unit, CHUVI Vigo Hospital, Instituto de Salud Carlos III, Spain.

PROCAP

PROCAP was supported by the Swedish Cancer Foundation (08-708, 09-0677). We thank and acknowledge all of the participants in the PROCAP study. KI Biobank is acknowledged for handling the samples and for DNA extraction.
PROFILE
We would like to acknowledge the support of the Ronald and Rita McAulay Foundation and Cancer Research UK. We also acknowledge support from the National Institute for Health Research (NIHR) to the Biomedical Research Centre at The Institute of Cancer Research and Royal Marsden Foundation NHS Trust. We acknowledge the Profile study steering committee and participants.

PROGReSS
This research was supported by Spanish Instituto de Salud Carlos III (ISCIII) funding, an initiative of the Spanish Ministry of Economy and Innovation partially supported by European Regional Development FEDER Funds (INT15/00070, INT16/00154, INT17/00133; PI19/01424; PI16/00046; PI13/02030; PI10/00164), and through the Autonomous Government of Galicia (Consolidation and structuring program: IN607B). We would like to thank the patients for their contribution to the study.

ProHealth
This work was supported by National Institutes of Health grants: CA127298, CA088164, CA112355, and CA241410. This work was also supported by the UCSF Goldberg-Benioff Program in Cancer Translational Biology. Support for participant enrollment, survey completion, and biospecimen collection for the RPGEH was provided by the Robert Wood Johnson Foundation, the Wayne and Gladys Valley Foundation, the Ellison Medical Foundation, and Kaiser Permanente national and regional community benefit programs. Genotyping of the GERA cohort was funded by a grant from the
National Institute on Aging, National Institute of Mental Health, and the National Institute of Health Common Fund (RC2 AG036607). We are grateful to the Kaiser Permanente Northern California members who have generously agreed to participate in the Kaiser Permanente Research Program on Genes, Environment, and Health, the ProHealth Study and the California Men's Health Study.

**ProMPT & ProtecT**

ProtecT would like to acknowledge the support of The University of Cambridge, Cancer Research UK. Cancer Research UK grants [C8197/A10123] and [C8197/A10865] supported the genotyping team. We would also like to acknowledge the support of the National Institute for Health Research which funds the Cambridge Bio-medical Research Centre, Cambridge, UK. We would also like to acknowledge the support of the National Cancer Research Prostate Cancer: Mechanisms of Progression and Treatment (PROMPT) collaborative (grant code G0500966/75466) which has funded tissue and urine collections in Cambridge. We are grateful to staff at the Welcome Trust Clinical Research Facility, Addenbrooke’s Clinical Research Centre, Cambridge, UK for their help in conducting the ProtecT study. We also acknowledge the support of the NIHR Cambridge Biomedical Research Centre, the DOH HTA (ProtecT grant) and the NCRI / MRC (ProMPT grant) for help with the bio-repository. The UK Department of Health funded the ProtecT study through the NIHR Health Technology Assessment Programme (projects 96/20/06, 96/20/99). The ProtecT trial and its linked ProMPT and CAP (Comparison Arm for ProtecT) studies are supported by Department of Health, England; Cancer Research UK grant number C522/A8649, Medical Research Council
of England grant number G0500966, ID 75466 and The NCRI, UK. The epidemiological data for ProtecT were generated through funding from the Southwest National Health Service Research and Development. DNA extraction in ProtecT was supported by USA Dept of Defense award W81XWH-04-1-0280, Yorkshire Cancer Research and Cancer Research UK. The authors would like to acknowledge the contribution of all members of the ProtecT study research group. The views and opinions expressed therein are those of the authors and do not necessarily reflect those of the Department of Health of England. The bio-repository from ProtecT is supported by the NCRI (ProMPT) Prostate Cancer Collaborative and the Cambridge BMRC grant from NIHR. We acknowledge support from the National Cancer Research Institute (National Institute of Health Research (NIHR) Collaborative Study: “Prostate Cancer: Mechanisms of Progression and Treatment (PROMPT)” (grant G0500966/75466). We thank the National Institute for Health Research, Hutchison Whampoa Limited, the Human Research Tissue Bank (Addenbrooke’s Hospital), and Cancer Research UK.

The authors would like to thank those men with prostate cancer and the subjects who have donated their time and their samples to the Cambridge Biorepository, which were used in this research. We also would like to acknowledge to support of the research staff in S4 who so carefully curated the samples and the follow-up data.

**PROtEuS**

PROtEuS was supported financially through grants from the Canadian Cancer Society [13149, 19500, 19864, 19865] and the Cancer Research Society, in partnership with the Ministère de l'enseignement supérieur, de la recherche, de la science et de la
technologie du Québec, and the Fonds de la recherche du Québec – Santé, and from the Canadian Institutes of Health Research [grant 159704]. PROtEuS would like to thank its collaborators and research personnel, and the urologists involved in subject recruitment.

QLD
The QLD research is supported by The National Health and Medical Research Council (NHMRC) Australia Project Grants [390130, 1009458] and NHMRC Career Development Fellowship, Cancer Australia PdCCRS and Cancer Council Queensland. The QLD team would like to acknowledge and sincerely thank the urologists, pathologists, data managers and patient participants who have generously and altruistically supported the QLD cohort.

RAPPER
RAPPER has been funded by Cancer Research UK [C1094/A11728; C1094/A18504], Cancer Research Manchester Centre [C147/A18083; C147/A25254] and NIHR Manchester Biomedical Research Centre.

SABOR
The SABOR research is supported by NIH/NCI Early Detection Research Network, grant U01 CA0866402-18. Also supported by the Cancer Center Support Grant to the Mays Cancer Center from the National Cancer Institute (US) P30 CA054174
SCCS
SCCS is funded by NIH grant R01 CA092447, and SCCS sample preparation was conducted at the Epidemiology Biospecimen Core Lab that is supported in part by the Vanderbilt-Ingram Cancer Center (P30 CA68485). Data on SCCS cancer cases used in this publication were provided by the Alabama Statewide Cancer Registry; Kentucky Cancer Registry, Lexington, KY; Tennessee Department of Health, Office of Cancer Surveillance; Florida Cancer Data System; North Carolina Central Cancer Registry, North Carolina Division of Public Health; Georgia Comprehensive Cancer Registry; Louisiana Tumor Registry; Mississippi Cancer Registry; South Carolina Central Cancer Registry; Virginia Department of Health, Virginia Cancer Registry; Arkansas Department of Health, Cancer Registry. The Arkansas Central Cancer Registry is fully funded by a grant from National Program of Cancer Registries, Centers for Disease Control and Prevention (CDC). Data on SCCS cancer cases from Mississippi were collected by the Mississippi Cancer Registry which participates in the National Program of Cancer Registries (NPCR) of the Centers for Disease Control and Prevention (CDC). The contents of this publication are solely the responsibility of the authors and do not necessarily represent the official views of the CDC or the Mississippi Cancer Registry.

SCPCS
SCPCS is funded by CDC grant S1135-19/19, and SCPCS sample preparation was conducted at the Epidemiology Biospecimen Core Lab that is supported in part by the Vanderbilt-Ingram Cancer Center (P30 CA68485).
SEARCH

SEARCH is funded by a programme grant from Cancer Research UK [C490/A10124] and supported by the UK National Institute for Health Research Biomedical Research Centre at the University of Cambridge.

SFPCS

SFPCS was funded by California Cancer Research Fund grant 99-00527V-10182

SNP Prostate Ghent

The study was supported by the National Cancer Plan, financed by the Federal Office of Health and Social Affairs, Belgium.

SPAG

SPAG is funded by Wessex Medical Research. SPAG would like to acknowledge Hope for Guernsey, MUG, HSSD, MSG, Roger Allsopp

STHM2

STHM2 was supported by grants from The Strategic Research Programme on Cancer (StratCan), Karolinska Institutet; the Linné Centre for Breast and Prostate Cancer (CRISP, number 70867901), Karolinska Institutet; The Swedish Research Council (number K2010-70X-20430-04-3) and The Swedish Cancer Society (numbers 11-0287 and 11-0624); Stiftelsen Johanna Hagstrand och Sigfrid Linnér’s minne; Swedish Council for Working Life and Social Research (FAS), number 2012-0073. The authors
acknowledge the Karolinska University Laboratory, Aleris Medilab, Unilabs and the Regional Prostate Cancer Registry for performing analyses and help to retrieve data. We wish to thank the BBMRI.se biobank facility at Karolinska Institutet for biobank services.

**SWOG-PCPT and SWOG-SELECT**

PCPT and SELECT are funded by Public Health Service grants U10CA37429 and 5UM1CA182883 from the National Cancer Institute. The authors thank the site investigators and staff and, most importantly, the participants from PCPT and SELECT who donated their time to this trial.

**TAMPERE**

The Tampere (Finland) study was supported by the Academy of Finland (251074), The Finnish Cancer Organisations, Sigrid Juselius Foundation, and the Competitive Research Funding of the Tampere University Hospital (X51003). The PSA screening samples were collected by the Finnish part of ERSPC (European Study of Screening for Prostate Cancer).

**Toronto**

Prostate Cancer Canada Movember Discovery Grant (D2013-17) to RJH; Canadian Cancer Society Research Institute Career Development Award in Cancer Prevention (2013-702108) to Rjh
UGPCS

UGPCS was supported by 4R01CA165862-05 NIH/NCI

UK Biobank

This research has been conducted using the UK Biobank Resource under application number 42195.

UKGPCS

UKGPCS would also like to thank the following for funding support: The Institute of Cancer Research and The Everyman Campaign, The Prostate Cancer Research Foundation, Prostate Research Campaign UK (now Prostate Action), The Orchid Cancer Appeal, The National Cancer Research Network UK, The National Cancer Research Institute (NCRI) UK. We are grateful for support of NIHR funding to the NIHR Biomedical Research Centre at The Institute of Cancer Research and The Royal Marsden NHS Foundation Trust. UKGPCS should also like to acknowledge the NCRN nurses, data managers and Consultants for their work in the UKGPCS study.

UKGPCS would like to thank all urologists and other persons involved in the planning, coordination, and data collection of the study.

ULM

The Ulm group received funds from the German Cancer Aid (Deutsche Krebshilfe).

UTAH
The Keith and Susan Warshaw Fund, C. S. Watkins Urologic Cancer Fund and The Tennity Family Fund supported the Utah study. The project was supported by Award Number P30CA042014 from the National Cancer Institute.

WFPCS
WFPCS was supported by a grant from the American Cancer Society (No. CNE-101119), a pilot grant from the Comprehensive Cancer Center of Wake Forest University (CA12197) and a grant from the National Research Foundation to the Wake Forest University's General Clinical Research Center (M01-RR07122). The authors are grateful to study participants. We also want to acknowledge the contributions the General Clinical Research Center, the Urology Clinic and the Internal Medicine Clinic.

WUGS / WUPCS
WUGS would like to thank the following for funding support: The Anthony DeNovi Fund, the Donald C. McGraw Foundation, and the St. Louis Men’s Group Against Cancer.

STHM1 & CAPS
The Department of Medical Epidemiology and Biostatistics, Karolinska Institute, Stockholm, Sweden was supported by the Cancer Risk Prediction Center (CRisP; www.crispcenter.org), a Linneus Centre (Contract ID 70867902) financed by the Swedish Research Council, Swedish Research Council (grant no K2010-70X-20430-04-3), the Swedish Cancer Foundation (grant no 09-0677), the Hedlund Foundation, the Soederberg Foundation, the Enqvist Foundation, ALF funds from the Stockholm County...
Council, Stiftelsen Johanna Hagstrand och Sigfrid Linner’s Minne, Karlsson’s Fund for urological and surgical research. We thank and acknowledge all of the participants in the Stockholm-1 study. KI Biobank is acknowledged for handling the samples and for DNA extraction.

We acknowledge the ARCS Foundation, Inc., Los Angeles Chapter, for their generous support of Lilit Moss through the Margaret Kirsten Ponty Fellowship and Burcu Darst through the John and Edith Leonis Family Foundation.

Additional Collaborators can be found on the PRACTICAL website:

http://practical.icr.ac.uk/.