Supplementary Table 1. Characteristics of controls and PCa cases with and without WCRF/AICR score in CAPLIFE study.

|  | Controls with WCRF/AICR score $n=302$ | Controls without WCRF/AICR <br> score $n=29$ | PCa cases with WCRF/AICR score $n=398$ | PCa cases without WCRF/AICR score $n=47$ |
| :---: | :---: | :---: | :---: | :---: |
| Age (years), mean (SD) | 65.3 (8.2) | 63.5 (6.4) | 67.7 (7.4) | 67.1 (8.0) |
| $p$-value |  | 0.27 |  | 0.54 |
| Age (years), $n$ (\%) |  |  |  |  |
| 40 to 54 | 39 (12.9) | 3 (10.3) | 21 (5.3) | 4 (8.5) |
| 55 to 69 | 162 (53.7) | 21 (72.4) | 217 (54.5) | 24 (51.1) |
| 70 to 80 | 101 (33.4) | 5 (17.3) | 160 (40.2) | 19 (40.4) |
| $p$-value |  | 0.14 |  | 0.65 |
| Education, $n$ (\%) |  |  |  |  |
| Primary | 92 (30.5) | 12 (41.4) | 119 (29.9) | 26 (55.3) |
| Secondary | 147 (48.7) | 12 (41.4) | 211 (53.0) | 14 (29.8) |
| University | 63 (20.8) | 5 (17.2) | 68 (17.1) | 5 (10.6) |
| Missing |  |  | - | 2 (4.3) |
| $p$-value |  | 0.48 |  | <0.01 |
| Smoking status, $n$ (\%) |  |  |  |  |
| Never | 88 (29.1) | 6 (20.7) | 105 (26.4) | 11 (23.4) |
| Former | 157 (52.0) | 14 (48.3) | 212 (53.3) | 23 (49.0) |
| Current | 57 (18.9) | 8 (27.6) | 81 (20.3) | 12 (25.5) |
| Missing | - | 1 (3.4) |  | 1 (2.1) |
| $p$-value |  | 0.41 |  | 0.66 |
| First-degree family history of PCa ${ }^{1}, n(\%)$ |  |  |  |  |
| No | 287 (95.0) | 27 (93.0) | 373 (93.7) | 40 (85.1) |
| Yes | 15 (5.0) | 1 (3.5) | 25 (6.3) | 1 (2.1) |
| Unknown/Missing | - | 1 (3.5) | - | 6 (12.8) |
| $p$-value |  | 0.74 |  | 0.32 |
| Aggressiveness, $n$ (\%) |  |  |  |  |
| ISUP 1-2 | - | - | 307 (77.1) | 40 (85.1) |
| ISUP 3-5 | - | - | 91 (22.9) | 6 (12.8) |
| Unknown | - | - | - | 1 (2.1) |
| $p$-value |  |  |  | 0.13 |

SD, standard deviation. ${ }^{1}$ First-degree history of PCa in father and/or brothers.

Supplementary Table 2. Mutually adjusted odds ratios and $95 \%$ confidence intervals for low and high aggressiveness PCa associated with the components of the 2018 WCRF/AICR score in CAPLIFE study.

|  | Low aggressiveness PCa Cases |  |  | High aggressiveness PCa Cases |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Components of the score | N Controls/Cases | aOR ${ }^{1}(95 \% \mathrm{CI})^{2}$ | $p$ trend | N Controls/Cases | $\begin{gathered} \text { aOR }^{1}(95 \% \\ \text { CI })^{2} \end{gathered}$ | $\begin{gathered} p- \\ \text { trend } \end{gathered}$ |
| 1. Be a healthy weight ${ }^{2}$ |  |  | 0.53 |  |  | 0.12 |
| 0-0.25 | 129/138 | 1 |  | 129/43 | 1 |  |
| 0.5 | $85 / 64$ | 0.70 (0.45-1.07) |  | 85/23 | 0.59 (0.31-1.10) |  |
| 0.75-1 | 88/105 | 1.18 (0.79-1.77) |  | 88/25 | 0.61 (0.33-1.21) |  |
| 2. Be physically active |  |  | 0.77 |  |  | 0.47 |
| 0 | 227/242 | 1 |  | 227/73 | 1 |  |
| 0.5 | 17/11 | 0.54 (0.23-1.23) |  | 17/3 | 0.51 (0.13-1.96) |  |
| 1 | 58/54 | 0.98 (0.63-1.53) |  | 58/15 | 0.82 (0.41-1.63) |  |

3. Eat a diet rich in whole
grains, vegetables, fruit and 0.74
beans ${ }^{3}$

| $0-0.25$ | $14 / 11$ | 1 | $14 / 4$ | 1 |
| :---: | :---: | :---: | :---: | :---: |
| 0.5 | $16 / 22$ | $1.73(0.56-5.21)$ | $16 / 4$ | $0.72(0.13-3.87)$ |
| $0.75-1$ | $272 / 274$ | $1.40(0.56-3.51)$ | $272 / 83$ | $0.70(0.19-2.51)$ |

4. Limit consumption of
'fast foods' and other processed foods high in fat, starches or sugars

| 0 | $101 / 127$ |
| :---: | :---: |
| 0.5 | $100 / 102$ |
| 1 | $101 / 78$ |

0
0.5
1
5. Limit consumption of red
and processed meat
0
0.5
1
and processed meat

| 0 | $231 / 231$ |
| :---: | :---: |
| 0.5 | $65 / 63$ |
| 1 | $6 / 13$ |

1
$0.95(0.60-1.48)$
$2.26(0.79-6.44)$
0.44

| $101 / 36$ | 1 |
| :---: | :---: |
| $100 / 23$ | $0.61(0.32-1.16)$ |
| $101 / 32$ | $0.77(0.42-1.45)$ |

0.40

