

**Supplementary Table 1. Comparisons of characteristics between included and excluded participants.**

|  | Included (n=905) | Excluded (n=454) | P-value |
|--|------------------|------------------|---------|
| <b>Age at recruitment, years</b>         |                  |                  | <0.001  |
| Mean                                     | 51.9             | 54.8             |         |
| SD                                       | 12.0             | 11.2             |         |
| <b>Male, n (%)</b>                       | 803 (88.7)       | 389 (85.7)       | 0.107   |
| <b>BMI≥28 kg/m<sup>2</sup>, n (%)</b>    | 54 (6.0)         | 21 (4.7)         | 0.329   |
| <b>Education level, n (%)</b>            |                  |                  | 0.633   |
| Primary school or below                  | 181 (20.0)       | 98 (21.8)        |         |
| Secondary & High school                  | 548 (60.6)       | 260 (57.8)       |         |
| College or above                         | 176 (19.4)       | 92 (20.4)        |         |
| <b>Residence, n (%)</b>                  |                  |                  | 0.055   |
| Urban                                    | 619 (68.4)       | 333 (73.3)       |         |
| Rural                                    | 286 (31.6)       | 121 (26.7)       |         |
| <b>Smoker, n (%)</b>                     |                  |                  | <0.001  |
| Current                                  | 264 (29.2)       | 168 (37.0)       |         |
| former                                   | 278 (30.7)       | 71 (15.6)        |         |
| Never                                    | 363 (40.1)       | 215 (47.4)       |         |
| <b>Alcohol drinker, n (%)</b>            |                  |                  | 0.097   |
| Current                                  | 240 (26.5)       | 102 (22.5)       |         |
| former                                   | 148 (16.4)       | 65 (14.3)        |         |
| Never                                    | 517 (57.1)       | 287 (63.2)       |         |
| <b>Physical activity, MET. h/day</b>     |                  |                  |         |
| Median                                   | 29.4             |                  |         |
| Interquartile range                      | 25.6-36.7        |                  |         |
| <b>With family history of PLC, n (%)</b> | 134 (14.8)       | 60 (13.2)        | 0.331   |
| <b>HBV/HCV infection, n (%)</b>          | 813 (89.8)       | 411 (90.5)       | 0.774   |
| <b>CRP≥3 mg/L, n (%)</b>                 | 434 (48.0)       | 235 (52.1)       | 0.155   |
| <b>Arterial hypertension, n (%)</b>      | 132 (14.6)       | 69 (15.2)        | 0.764   |
| <b>Diabetes, n (%)</b>                   | 85 (9.4)         | 39 (8.6)         | 0.628   |
| <b>Fatty liver or cirrhosis, n (%)</b>   | 647 (71.5)       | 313 (69.0)       | 0.471   |
| <b>Regional lymph nodes, n (%)</b>       |                  |                  | 0.206   |
| Yes                                      | 35 (3.9)         | 27 (5.9)         |         |
| No                                       | 842 (93.0)       | 415 (91.4)       |         |
| Unsure                                   | 28 (3.1)         | 12 (2.6)         |         |
| <b>Distant metastasis, n (%)</b>         |                  |                  | 0.227   |
| Yes                                      | 32 (3.5)         | 21 (4.6)         |         |
| No                                       | 862 (95.2)       | 423 (93.2)       |         |
| Unsure                                   | 11 (1.3)         | 10 (2.2)         |         |
| <b>Tumor number, n (%)</b>               |                  |                  | 0.995   |
| Solitary                                 | 558 (61.7)       | 280 (61.7)       |         |
| Multiple                                 | 347 (38.3)       | 174 (38.3)       |         |
| <b>Tumor size≥5cm, n (%)</b>             | 482 (53.9)       | 239 (53.1)       | 0.81    |
| <b>Vascular invasion, n (%)</b>          | 182 (20.1)       | 85 (18.7)        | 0.544   |

|   |            |            |       |
|---|------------|------------|-------|
| <b>Child-Pugh class, n (%)</b>          |            |            | 0.139 |
| A                                       | 891 (98.5) | 441 (97.1) |       |
| B                                       | 14 (1.5)   | 13 (2.9)   |       |
| <b>Diagnosed only by imaging, n (%)</b> | 358 (39.6) | 170 (37.4) | 0.451 |
| <b>Diagnosed by pathology, n (%)</b>    | 547 (60.4) | 284 (62.6) | 0.451 |
| <b>Treatment, n (%)</b>                 |            |            | 0.356 |
| Liver resection                         | 434 (48.0) | 214 (47.2) |       |
| Radiofrequency ablation                 | 97 (10.7)  | 40 (8.8)   |       |
| Intervention                            | 347 (38.3) | 172 (37.9) |       |
| Others                                  | 27 (3.0)   | 28 (6.2)   | □     |

Abbreviations: SD, standard deviation; BMI, body mass index; PLC, primary liver cancer; CRP, C-reactive protein.