**SUPPLEMENTARY TABLES**

Supplementary Table 1. Characteristics of literature included in the study.

| Number | First Author | Year | Country | Ethnicity | Type of cancer | Case/Control | Genotyped SNPs |
|--------|--------------|------|---------|-----------|----------------|--------------|----------------|
|        |              |      |         |           |                |              | rs11549465    | rs11549467    | rs2057482    |
| 1      | Clifford     | 2001 | UK      | Caucasian | renal         | 48/143       | ✓              | ✓              | ✓            |
| 2      | Tanimoto     | 2003 | Japan   | Asian     | head and neck | 55/110       | ✓              | ✓              | ✓            |
| 3      | KUWAIE       | 2004 | Japan   | Asian     | colorectal    | 100/100      | ✓              |               |             |
| 4      | Ollerenshaw  | 2004 | UK      | Caucasian | renal         | 160/162(146/288)* | ✓              | ✓              | ✓            |
| 5      | LING         | 2005 | China   | Asian     | esophageal    | 95/104       | ✓              |               |             |
| 6      | Chau         | 2005 | America | Caucasian | prostate     | 196/196      | ✓              |               |             |
| 7      | Fransen      | 2006 | Sweden  | Caucasian | colorectal   | 198/258      | ✓              | ✓             |             |
| 8      | Konac        | 2007 | Turkey  | Caucasian | cervical     | 32/107       | ✓              | ✓              |             |
| 9      | Konac        | 2007 | Turkey  | Caucasian | endometrial  | 21/107       | ✓              | ✓              |             |
| 10     | Li           | 2007 | America | Caucasian | prostate     | 1072/1271    | ✓              | ✓              |             |
| 11     | Orr-Urtreger | 2007 | Israel  | Asian     | prostate     | 402/300      | ✓              | ✓              |             |
| 12     | Nadaoka      | 2008 | Japan   | Asian     | bladder      | 219/461      | ✓              | ✓              |             |
| 13     | Ayaydin      | 2008 | Turkey  | Caucasian | breast       | 102/102      | ✓              | ✓              |             |
| 14     | KIM          | 2008 | Korea   | Asian     | breast       | 90/102       | ✓              | ✓              |             |
| 15     | Lee          | 2008 | Korea   | Asian     | breast       | 1599/1536    | ✓              | ✓              |             |
| 16     | Horree       | 2008 | Netherlands | Caucasian | endometrial | 58/559       | ✓              |               |             |
| 17     | Jacobs       | 2008 | USA     | Caucasian | prostate     | 1420/1450    | ✓              | ✓              |             |
| 18     | NAIDU        | 2009 | Malaysia | Asian     | breast       | 410/275      | ✓              | ✓              |             |
| 19     | Li           | 2009 | China   | Asian     | gastric      | 87/106       | ✓              | ✓              |             |
| 20     | Konac        | 2009 | Turkey  | Caucasian | lung         | 141/156      | ✓              | ✓              |             |
| 21     | Muñoz-Guerra | 2009 | Spain   | Caucasian | head and neck | 74/139      | ✓              | ✓              |             |
| 22     | Chen         | 2009 | China   | Asian     | head and neck | 174/347     | ✓              | ✓              |             |
| 23     | Foley        | 2009 | Ireland | Caucasian | prostate     | 95/188       | ✓              |               |             |
| 24     | MORRIS       | 2009 | UK      | Caucasian | renal        | 332/313      | ✓              | ✓              |             |
| 25     | Knechtel     | 2010 | Austria | Caucasian | colorectal   | 381/2156     | ✓              | ✓              |             |
| 26     | Frank        | 2010 | Germany | Caucasian | colorectal   | 1768/1794    | ✓              |               |             |
| 27     | HSIAM        | 2010 | China   | Asian     | hepatocellular | 102/347     | ✓              | ✓              |             |
| 28     | Shieh        | 2010 | China   | Asian     | head and neck | 305/96       | ✓              | ✓              |             |
| 29     | Kim          | 2011 | Korea   | Asian     | cervical     | 199/214      | ✓              | ✓              |             |
| 30     | KANG         | 2011 | Korea   | Asian     | colorectal   | 50/50        | ✓              |               |             |
| 31     | QX           | 2011 | China   | Asian     | glioma       | 150/150      | ✓              |               |             |
| 32     | PUTRA        | 2011 | Japan   | Asian     | lung         | 83/110       | ✓              | ✓              |             |
| 33     | Wang         | 2011 | China   | Asian     | pancreatic   | 263/271      | ✓              | ✓              |             |
| 34     | Zagouri      | 2012 | Greece  | Caucasian | breast       | 113/124      | ✓              |               |             |
| 35     | KUO          | 2012 | China   | Asian     | lung         | 285/300      | ✓              |               |             |
| 36     | Alves        | 2012 | Brazil  | Caucasian | head and neck | 40/88        | ✓              | ✓              |             |
| 37     | Ruiz-Tovar   | 2012 | Spain   | Caucasian | pancreatic   | 59/152       | ✓              | ✓              |             |
| 38     | Li           | 2012 | China   | Asian     | prostate     | 662/716      | ✓              | ✓              | ✓            |
| 39     | Qin          | 2012 | China   | Asian     | renal cell   | 620/623      | ✓              | ✓              |             |
| 40     | RIBEIRO      | 2013 | Portugal | Caucasian | breast       | 96/74        | ✓              | ✓              |             |
| 41     | Mera-Menéndez| 2013 | Spain   | Caucasian | glottic      | 121/154      | ✓              | ✓              |             |
| 42     | Meka         | 2014 | India   | Asian     | breast       | 348/320      | ✓              |               |             |
| 43     | Sharma       | 2014 | India   | Asian     | breast       | 200/200      | ✓              | ✓              |             |
| 44     | Fu           | 2014 | China   | Asian     | cervical     | 518/553      | ✓              | ✓              |             |
| 45     | Liu          | 2014 | China   | Asian     | hepatocellular | 157/173      | ✓              | ✓              |             |
| 46     | Fraga        | 2014 | Portugal | Caucasian | prostate     | 754/736      | ✓              |               |             |
| 47     | Lessi        | 2014 | Italy   | Caucasian | renal        | 117/1000     | ✓              |               |             |
| Number | First Author | Type of cancer | Frequency distributions of the genotypes |
|--------|--------------|----------------|----------------------------------------|
|        |              |                | CC_case | CT_case | TT_case | CC_control | CT_control | TT_control |
| 1      | Nadaoka      | bladder        | 197     | 38      | 10      | 419        | 42         |           |
| 2      | Sharma       | breast         | 152     | 50      | 10      | 149        | 42         | 9          |
| 3      | Meka         | breast         | 245     | 9       | 9       | 229        | 89         | 2          |
| 4      | RIBEIRO      | breast         | 74      | 21      | 1       | 61         | 9          | 4          |
| 5      | Zagouri      | breast         | 98      | 15      | 0       | 107        | 17         | 0          |
| 6      | NAIDU        | breast         | 294     | 100     | 16      | 222        | 50         | 3          |
| 7      | KIM          | breast         | 81      | 8       | 1       | 93         | 9          | 0          |
| 8      | Apaydin      | breast         | 79      | 21      | 2       | 68         | 29         | 5          |
| 9      | Lee          | breast         | 1207    | 119     | 6       | 1245       | 123        | 1          |
| 10     | Fu           | cervical       | 467     | 49      | 2       | 492        | 60         | 1          |
| 11     | Kim          | cervical       | 177     | 22      | 0       | 187        | 27         | 0          |
| 12     | Konac        | cervical       | 10      | 14      | 8       | 68         | 37         | 2          |
| 13     | Fransén      | colorectal     | 167     | 28      | 3       | 213        | 43         | 2          |
| 14     | KUWAI        | colorectal     | 100     | 0       | 0       | 89         | 11         | 0          |
| 15     | KANG         | colorectal     | 38      | 12      | 3       | 46         | 4          |            |
| 16     | Demirel      | colorectal     | 62      | 27      | 3       | 81         | 16         | 4          |
| 17     | Knechtel     | colorectal     | 291     | 77      | 77      | 1773       | 383        |            |
| 18     | Ni           | Multi          | 219     | 44      | 4       | 241        | 34         | 0          |
| 19     | Hörée        | endometrial    | 50      | 5       | 3       | 463        | 84         | 12         |
| 20     | Konac        | endometrial    | 4       | 12      | 5       | 68         | 37         | 2          |
| 21     | LING         | esophageal     | 84      | 11      | 0       | 93         | 11         | 0          |
| 22     | Li           | gastric        | 83      | 4       | 0       | 93         | 13         | 0          |
| 23     | Xu           | glioma         | 121     | 27      | 2       | 135        | 14         | 1          |
| 24     | Mera-Menéndez| glottic        | 85      | 18      | 15      | 113        | 27         | 8          |
| 25     | Liu          | hepatocellular | 152     | 4       | 1       | 162        | 11         | 0          |
| 26     | HSIAO        | hepatocellular | 94      | 8       | 0       | 334        | 13         | 0          |
| 27     | Tanimoto     | head and neck  | 45      | 10      | 0       | 98         | 12         | 0          |
| 28     | Uslu         | laryngeal      | 28      | 7       | 0       | 28         | 7          | 0          |
| 29     | YAMAMOTO     | lung           | 405     | 55      | 2       | 341        | 37         | 1          |
| 30     | KUO          | lung           | 153     | 94      | 38      | 216        | 73         | 11         |
| 31     | PUTRA        | lung           | 74      | 9       | 0       | 98         | 12         | 0          |
| 32     | Konac        | lung           | 110     | 31      | 0       | 111        | 43         | 2          |
| 33     | Muñoz-Guerra | head and neck  | 57      | 6       | 7       | 113        | 27         | 8          |
| 34     | Chen         | head and neck  | 163     | 10      | 1       | 334        | 13         | 0          |
| 35     | Alves        | head and neck  | 0       | 1       | 39      | 0          | 85         | 3          |
| 36     | Shieh        | head and neck  | 282     | 23      | 0       | 89         | 7          | 0          |
| 37     | Konac        | ovarian        | 34      | 14      | 1       | 68         | 37         | 2          |

Supplementary Table 2. Distribution of genotypes of $HIF-1\alpha$ rs11549465 polymorphism.

\(^a\) 160/162 for rs11549465; 146/288 for rs11549467

\(^b\) Including multi digestive tract cancers
| Number | First Author | Type of cancer | Frequency distributions of the genotypes |
|--------|--------------|----------------|------------------------------------------|
|        |              |                | GG_case | GA_case | AA_case | GG_control | GA_control | AA_control |
| 1      | Nadaoka      | bladder        | 204     | 15      | 421     | 40         |            |            |
| 2      | Shan         | breast         | 501     | 55      | 4       | 544        | 37         | 2          |
| 3      | Sharma       | breast         | 200     | 0       | 0       | 200        | 0          | 0          |
| 4      | RIBEIRO      | breast         | 96      | 0       | 0       | 74         | 0          | 0          |
| 5      | NAIDU        | breast         | 332     | 72      | 6       | 232        | 41         | 2          |
| 6      | KIM          | breast         | 87      | 0       | 0       | 94         | 7          | 1          |
| 7      | Apaydin      | breast         | 102     | 0       | 0       | 98         | 4          | 0          |
| 8      | Fu           | cervical       | 489     | 29      | 0       | 510        | 42         | 1          |
| 9      | Kim          | cervical       | 187     | 12      | 0       | 200        | 13         | 1          |
| 10     | Konac        | cervical       | 32      | 0       | 0       | 107        | 0          | 0          |
| 11     | Fransén      | colorectal     | 189     | 9       | 0       | 247        | 9          | 0          |
| 12     | Demirel      | colorectal     | 91      | 1       | 0       | 98         | 3          | 0          |
| 13     | Knechtel     | colorectal     | 356     | 11      | 2      | 2080       | 76         |            |
| 14     | Ni           | multi a        | 221     | 41      | 5       | 259        | 16         | 0          |
| 15     | Konac        | endometrial    | 21      | 0       | 0       | 107        | 0          | 0          |
| 16     | Li           | gastric        | 74      | 13      | 0       | 100        | 6          | 0          |
| 17     | Mera-Menéndez| glottic        | 107     | 4       | 0       | 130        | 9          | 0          |
| 18     | Liu          | hepatocellular | 147     | 10      | 0       | 151        | 21         | 1          |
| 19     | HSIAO        | hepatocellular | 87      | 15      | 0       | 333        | 14         | 0          |
| 20     | Tanimoto     | head and neck  | 51      | 4       | 0       | 101        | 9          | 0          |
| 21     | YAMAMOTO     | lung           | 407     | 53      | 2       | 343        | 32         | 4          |
| 22     | KUO          | lung           | 150     | 94      | 41      | 215        | 74         | 11         |
| 23     | PUTRA        | lung           | 72      | 9       | 2       | 101        | 9          | 0          |
| 24     | Konac        | lung           | 140     | 1       | 0       | 154        | 2          | 0          |
| 25     | Martina      | multiple myeloma | 259   | 15      | 1      | 211        | 7          | 1          |
| 26     | Muñoz-Guerra| head and neck  | 40      | 21      | 3       | 130        | 9          | 0          |
| 27     | Chen         | head and neck  | 153     | 20      | 1       | 333        | 14         | 0          |
| 28     | Alves        | head and neck  | 2       | 1       | 37      | 81         | 7          | 0          |
| 29     | Shieh        | head and neck  | 281     | 24      | 0       | 89         | 7          | 0          |
| 30     | Konac        | ovarian        | 47      | 2       | 0       | 107        | 0          | 0          |
| 31     | Ruiz-Tovar   | pancreatic     | 54      | 2       | 3       | 142        | 10         | 0          |
| 32     | Wang         | pancreatic     | 198     | 65      | 0       | 249        | 22         | 0          |
| 33     | Li           | prostate       | 614     | 47      | 1       | 685        | 31         | 0          |
| 34     | Li           | prostate       | 1053    | 13      | 0       | 1247       | 17         | 0          |

*Including multi digestive tract cancers

**Supplementary Table 3. Distribution of genotypes of HIF-1α rs11549467 polymorphism.**
| Number | First Author     | Type of cancer | Frequency distributions of the genotypes |
|--------|------------------|----------------|------------------------------------------|
|        |                  |                | CC_case | CT_case | TT_case | CC_control | CT_control | TT_control |
| 1      | Martina          | multiple myeloma | 225     | 47      | 3       | 176        | 39         | 4          |
| 2      | YAMAMOTO         | lung            | 302     | 138     | 22      | 244        | 121        | 14         |
| 3      | Peckham-Gregory  | non-hodgkin lymphoma | 125     | 49      | 6       | 369        | 147        | 12         |
| 4      | Wang             | pancreatic      | 301     | 69      | 40      | 302        | 154        | 34         |
| 5      | Fu               | cervical        | 343     | 150     | 25      | 318        | 197        | 38         |
| 6      | Li               | prostate        | 418     | 212     | 32      | 428        | 241        | 47         |
| 7      | Qin              | renal           | 388     | 196     | 36      | 393        | 201        | 29         |
| 8      | Frank            | colorectal      | 32      | 477     | 1259    | 34         | 441        | 1319       |
| 9      | Lee              | breast          | 691     | 415     | 44      | 611        | 396        | 41         |

*a Including multi digestive tract cancers*