**Supplementary Table 1. Distribution of genotypes and alleles of *XRCC1*Arg399Glnpolymorphism**

|  |  |  |  |
| --- | --- | --- | --- |
| Number | First Author | Frequencies distribution of genotypes | HWEa |
| Case | Control |
| ArgArg | ArgGln  | GlnGln  | ArgArg | ArgGln  | GlnGln  |
| GG | AG | AA | GG | AG | AA |
| 1 | Joo | 257 | 194 | 27 | 500 | 354 | 68 | 0.63 |
| 2 | Malisic | 29 | 16 | 5 | 30 | 21 | 27 | 0.00 |
| 3 | Bajpai | 12 | 22 | 31 | 23 | 33 | 12 | 0.98 |
| 4 | Monteiro | 35 | 28 | 7 | 35 | 30 | 5 | 0.68 |
| 5 | Hosono | 57 | 33 | 1 | 137 | 106 | 18 | 0.68 |
| 6 | Djansugurova | 78 | 119 | 20 | 66 | 90 | 4 | 0.00 |
| 7 | Alsbeih | 52 | 34 | 14 | 59 | 40 | 1 | 0.04 |
| 8 | Sobczuk | 27 | 45 | 22 | 43 | 48 | 23 | 0.16 |
| 9 | Zhang | 43 | 31 | 6 | 109 | 58 | 10 | 0.54 |
| 10 | Samulak | 72 | 90 | 294 | 72 | 144 | 84 | 0.51 |
| 11 | Roszak | 49 | 101 | 39 | 116 | 152 | 40 | 0.37 |
| 12 | Makowska | 41 | 73 | 36 | 64 | 68 | 18 | 0.99 |
| 13 | Barbisan | 54 | 31 | 18 | 37 | 59 | 18 | 0.49 |
| 14 | Settheetham-Ishida | 66 | 41 | 4 | 69 | 44 | 5 | 0.54 |
| 15 | Wang | 225 | 198 | 34 | 191 | 194 | 50 | 0.94 |
| 16 | Farkasova | 8 | 9 | 1 | 11 | 17 | 2 | 0.18 |
| 17 | Huang | 289 | 203 | 47 | 528 | 235 | 37 | 0.10 |
| 18 | Niwa | 69 | 49 | 13 | 185 | 109 | 26 | 0.09 |
| 19 | Wu | 54 | 38 | 8 | 114 | 73 | 9 | 0.53 |

a Hardy-Weinberg equilibrium (HWE) in control subjects

**Supplementary Table 2. Distribution of genotypes and alleles of *XRCC1* Arg194Trppolymorphism**

|  |  |  |  |
| --- | --- | --- | --- |
| Number | First Author | Frequencies distribution of genotypes | HWEa |
| Case | Control |
| Arg/Arg | Arg/Trp | Trp/Trp | Arg/Arg | Arg/Trp | Trp/Trp |
| CC | CT | TT | CC | CT | TT |
| 1 | Joo | 219 | 211 | 48 | 414 | 406 | 42 | 0.00 |
| 2 | Michalska | 180 | 360 | 180 | 190 | 334 | 196 | 0.05 |
| 3 | Bajpai | 11 | 16 | 38 | 44 | 11 | 13 | 0.00 |
| 4 | Monteiro | 61 | 9 | 0 | 57 | 12 | 1 | 0.69 |
| 5 | Hosono | 30 | 46 | 15 | 125 | 113 | 23 | 0.72 |
| 6 | Djansugurova | 163 | 48 | 6 | 105 | 40 | 15 | 0.00 |
| 7 | Sobczuk | 89 | 5 | 0 | 103 | 11 | 0 | 0.59 |
| 8 | Zhang | 41 | 31 | 8 | 87 | 71 | 19 | 0.43 |
| 9 | Barbisan | 79 | 20 | 4 | 98 | 12 | 4 | 0.00 |
| 10 | Settheetham-Ishida | 53 | 49 | 9 | 65 | 51 | 2 | 0.02 |
| 11 | Wang | 367 | 89 | 1 | 344 | 81 | 5 | 0.92 |
| 12 | Farkasova | 14 | 3 | 0 | 24 | 6 | 0 | 0.54 |
| 13 | Huang | 241 | 220 | 78 | 407 | 330 | 63 | 0.73 |
| 14 | Wu | 48 | 43 | 9 | 87 | 93 | 16 | 0.20 |

a Hardy-Weinberg equilibrium (HWE) in control subjects

**Supplementary Table 3. Distribution of genotypes and alleles of *XRCC1* Arg280Hispolymorphism**

|  |  |  |  |
| --- | --- | --- | --- |
| Number | First Author | Frequencies distribution of genotypes | HWEa |
| Case | Control |
| Arg/Arg | Arg/His | His/His | Arg/Arg | Arg/His | His/His |
| GG | AG | AA | GG | AG | AA |
| 1 | Joo | 371 | 100 | 7 | 717 | 195 | 10 | 0.42 |
| 2 | Bajpai | 20 | 6 | 39 | 48 | 7 | 3 | 0.00 |
| 3 | Zhang | 68 | 11 | 1 | 142 | 34 | 1 | 0.49 |
| 4 | Wang | 364 | 90 | 4 | 354 | 71 | 2 | 0.43 |
| 5 | Huang | 416 | 117 | 6 | 620 | 171 | 9 | 0.46 |
| 6 | Wu | 74 | 24 | 2 | 140 | 55 | 1 | 0.07 |

a Hardy-Weinberg equilibrium (HWE) in control subjects