**Supplementary Table 1.** Clinical and epidemiological characteristics of HIV infected patients and healthy donors.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Controls vs. all HIV patients** | | | **HIV patient groups** | | | |
| **Characteristics** | **Control** | **All HIV (\*)** | **p-value** | **LTNPs-group** | **MPs-group** | **RPs-group** | **p-value** |
| **No.** | 111 | 661 |  | 181 | 332 | 148 |  |
| **Male** | 91 (82.0%) | 534 (81.3%) | 0.860 | 113 (63.8%) | 281 (84.6%) | 140 (94.6%) | **<0.001** |
| **Age (study inclusion), years** | 42 (37 - 49) | 41 (35 - 48) | 0.534 | 49 (46 - 52) | 38 (33 - 45) | 38 (33 - 43) | **<0.001** |
| **Age (HIV diagnosis), years** | - | 34 (29 - 40) | - | 40 (34 - 44) | 32 (27 - 38) | 34 (29 - 38) | **<0.001** |
| **Year at HIV diagnosis** | - | 2006 (1999 - 2008) | - | 1993 (1990 - 1997) | 2006 (2005 - 2008) | 2009 (2007 - 2010) | **<0.001** |
| **HIV acquired** |  |  |  |  |  |  |  |
| **IDU** | - | 164 (25.0%) | - | 128 (72.3%) | 29 (8.7%) | 7 (4.7%) | **<0.001** |
| **Homosexual (MSM)** | - | 356 (54.2%) | - | 13 (7.3%) | 219 (66.0%) | 124 (83.8%) |  |
| **Heterosexual** | - | 117 (17.8%) | - | 27 (15.3%) | 75 (22.6%) | 15 (10.1%) |  |
| **Others** | - | 20 (3.0%) | - | 9 (5.1%) | 9 (2.7%) | 2 (1.4%) |  |

**Statistics**: P-values were calculated by Chi-square or Fisher’s exact test, Mann-Whitney, and Kruskal-Wallis tests. Significant differences are shown in bold.

**Abbreviations**: MSM, men who have sex with men; IDU, intravenous drug users; HIV, Human immunodeficiency virus; LTNPs, Long Term Non-Progressors; MPs, Moderate Progressors; RPs, Rapid Progressors.

**Supplementary Table 2**. Characteristics of *CYP2R1*, *CYP27B1*, and *CYP24A1* polymorphisms in HIV infected patients and healthy donors.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***CYP* genotypes** | | | **Study groups** | | | **HWE** | |
| **Gene** | **SNPs** | **Genotype** | **Control group** | **HIV group** | **p-value** | **Control group** | **HIV group** |
| ***CYP2R1*** | **rs10500804** | TT | 38 (34.2%) | 199 (30.1%) | 0.666 | 0.698 | 0.695 |
|  |  | GT | 52 (46.8%) | 323 (48.9%) |  |  |  |
|  |  | GG | 21 (18.9%) | 139 (21.0%) |  |  |  |
|  | **rs1993116** | GG | 41 (36.9%) | 258 (39.0%) | 0.059 | 0.120 | 0.559 |
|  |  | AG | 46 (41.4%) | 316 (47.8%) |  |  |  |
|  |  | AA | 24 (21.6%) | 87 (13.2%) |  |  |  |
| ***CYP27B1*** | **rs10877012** | GG | 62 (55.9%) | 398 (60.2%) | 0.430 | 0.466 | 0.738 |
|  |  | GT | 40 (36.0%) | 228 (34.5%) |  |  |  |
|  |  | TT | 9 (8.1%) | 35 (5.3%) |  |  |  |
| ***CYP24A1*** | **rs6013897** | TT | 76 (68.5%) | 389 (58.9%) | **0.028** | 0.296 | 0.239 |
|  |  | AT | 34 (30.6%) | 229 (34.6%) |  |  |  |
|  |  | AA | 1 (0.9%) | 43 (6.5%) |  |  |  |

**Statistics**: P-values were calculated by the Chi-square test.

**Abbreviations**: HIV, human immunodeficiency virus; CYP2R1, cytochrome P450 family 2 subfamily R member 1; CYP27B1, cytochrome P450 family 27 subfamily B member 1; CYP24A1, cytochrome P450 family 24 subfamily A member 1; HWE, Hardy-Weinberg equilibrium.