### S3 Table: Study characteristics (Mean ±sd [25%,50%,75% Percentile] for quantitative variables, n(%) for gender

| Study  | KORA F4  | KORA F3  | SAPHIR  |
|--------|----------|----------|---------|
|        | n=2986*  | n=3080*  | n=1446* |
|        | n=1724†  | n=484†   |         |
| Age, yrs | 56.1±13.3 [44,56,67] | 57.4±12.9 [46,8,57,67] | 51.0±6.0 [46,52,55] |
|         | 61.0±8.9 [54,61,68] | 53.2±9.6 [46,54,61] |         |
| Gender (female) | 1545 (51.7%) | 1583 (51.4%) | 466 (32.2%) |
|         | 881 (51.1%) | 232 (47.9%) |         |
| Lp(a), mg/dL | 21.7±24.6 [5,2,11,7,13,0] | 22.1±26.2 [4,9,11,2,28,6] | 23.9±27.4 [5,3,11,6,35,6] |
|         | 22.4±25.1 [5,5,12,1,31,3] | 20.1±23.1 [5,2,10,2,25,2] |         |
| Apo(a) isoforms, KIV repeats‡ | 26.8±6.0 [23,26,31] | 27.2±6.0 [23,27,31] | 26.9±6.2 [22,26,31] |
|         | 26.8±5.9 [23,26,31] | 27.1±5.8 [23,27,31] |         |
| LDL-C in mg/dL | 135.9±33.8[112,134,157,5] | 128.1±32.6[105,126,5,148] | 142.4±35.4[118,141,165] |
|         | 140±35.2[115,138,15] | 131.3±33.1[108,129,152] |         |
| HDL-C in mg/dL | 56.8±15.2[46,55,66] | 58.8±17.1[46,8,56,69] | 59.1±15.5[48,57,68] |
|         | 56.5±14.6[46,55,65] | 58.3±17.9[46,56,68] |         |
| Total cholesterol in mg/dL | 216.3±38.7[189,215,239] | 218.3±39.9[191,216,243] | 226.5±38.8[199,224,251] |
|         | 221.9±39.2[195,220,247] | 221.1±38.1[195,218,244] |         |
| Triglycerides in mg/dL | 123.3±85.8[71,105,149] | 164.7±125.9[88,135,200] | 126±89.3[72,101,151] |
|         | 133.6±95.6[77,110,158] | 164.9±122.4[90,134,195] |         |

*First line in each cell: dataset available for SNP association analysis (with non-missing genotype, age, sex and Lp(a));
†Second line in each cell: subset available for methylation analysis (with no missing values in primary linear regression model);
‡ in heterozygous individuals the smaller of both isoforms per person is used