

**Supplementary table 5:** Multivariable analysis of the association between earlobe crease and selected cardiovascular risk factors,, CoLaus study, Lausanne, 2009-2012, adjusting for age, gender and waist circumference.

| <b>Earlobe crease</b>         | <b>Absence<br/>(n=3829)</b> | <b>Presence<br/>(n=806)</b> | <b>P-value</b> | <b>Absent<br/>(n=3829)</b> | <b>Unilateral<br/>(n=373)</b> | <b>Bilateral<br/>(n=429)</b> | <b>P-value<br/>for trend</b> |
|-------------------------------|-----------------------------|-----------------------------|----------------|----------------------------|-------------------------------|------------------------------|------------------------------|
| BMI (kg/m <sup>2</sup> )      | 26.1 ± 0                    | 26.4 ± 0.1                  | 0.003          | 26.1 ± 0.1                 | 26.4 ± 0.1                    | 26.4 ± 0.1                   | 0.01                         |
| Obesity                       | 1 (ref.)                    | 1.12 (0.82; 1.52)           | 0.48           | 1 (ref.)                   | 1.40 (0.93; 2.12)             | 0.91 (0.61; 1.36)            | 0.64                         |
| Smoking status                |                             |                             |                |                            |                               |                              |                              |
| Never                         | -                           | -                           | -              | -                          | -                             | -                            | -                            |
| Former                        | 1 (ref.)                    | 1.14 (0.95 - 1.36)          | 0.16           | 1 (ref.)                   | 0.95 (0.75; 1.21)             | 1.34 (1.06; 1.70)            | NA                           |
| Current                       | 1 (ref.)                    | 1.12 (0.90 - 1.40)          | 0.30           | 1 (ref.)                   | 0.91 (0.67; 1.23)             | 1.37 (1.03; 1.82)            | NA                           |
| Blood pressure status         |                             |                             |                |                            |                               |                              |                              |
| SBP (mm Hg) <sup>a</sup>      | 126 ± 1                     | 126 ± 1                     | 0.77           | 126 ± 1                    | 126 ± 1                       | 126 ± 1                      | 0.43                         |
| DBP (mm Hg) <sup>a</sup>      | 78 ± 1                      | 78 ± 1                      | 0.36           | 78 ± 1                     | 79 ± 1                        | 78 ± 1                       | 0.97                         |
| Hypertension                  | 1 (ref.)                    | 1.31 (1.09; 1.56)           | 0.004          | 1 (ref.)                   | 1.34 (1.05; 1.72)             | 1.28 (1.01; 1.62)            | 0.04                         |
| Lipids (mmol/L) <sup>b</sup>  |                             |                             |                |                            |                               |                              |                              |
| Total cholesterol             | 5.70 ± 0.02                 | 5.68 ± 0.04                 | 0.53           | 5.70 ± 0.02                | 5.69 ± 0.05                   | 5.66 ± 0.05                  | 0.47                         |
| LDL cholesterol               | 3.45 ± 0.01                 | 3.44 ± 0.03                 | 0.66           | 3.45 ± 0.01                | 3.44 ± 0.05                   | 3.43 ± 0.04                  | 0.69                         |
| HDL cholesterol               | 1.64 ± 0.01                 | 1.63 ± 0.01                 | 0.69           | 1.64 ± 0.01                | 1.64 ± 0.02                   | 1.62 ± 0.02                  | 0.38                         |
| Triglycerides                 | 1.36 ± 0.01                 | 1.37 ± 0.03                 | 0.47 §         | 1.36 ± 0.01                | 1.38 ± 0.04                   | 1.36 ± 0.04                  | 0.60 §                       |
| Glycaemic status              |                             |                             |                |                            |                               |                              |                              |
| Glucose (mmol/L) <sup>c</sup> | 5.87 ± 0.02                 | 5.92 ± 0.04                 | 0.23           | 5.87 ± 0.02                | 5.92 ± 0.05                   | 5.92 ± 0.05                  | 0.31                         |
| Insulin (µIU/mL) <sup>c</sup> | 8.3 ± 0.1                   | 8.4 ± 0.2                   | 0.43 §         | 8.3 ± 0.1                  | 8.6 ± 0.3                     | 8.3 ± 0.3                    | 0.43 §                       |

|                      |           |                   |      |           |                   |                   |      |
|----------------------|-----------|-------------------|------|-----------|-------------------|-------------------|------|
| HOMA-IR <sup>c</sup> | 2.3 ± 0.1 | 2.3 ± 0.1         | 0.47 | 2.3 ± 0.1 | 2.3 ± 0.1         | 2.4 ± 0.1         | 0.41 |
| Diabetes             | 1 (ref.)  | 1.23 (0.97; 1.57) | 0.08 | 1 (ref.)  | 1.28 (0.93; 1.76) | 1.19 (0.88; 1.61) | 0.25 |
| High HOMA-IR         | 1 (ref.)  | 0.97 (0.79; 1.18) | 0.75 | 1 (ref.)  | 1.04 (0.79; 1.36) | 0.91 (0.70; 1.18) | 0.46 |

For quantitative variables, multivariable analyses were performed by ANOVA and the results are expressed as adjusted mean ± standard error. For categorical variables (excluding smoking), multivariable analyses were performed by logistic regression and results are expressed as odds ratio (95% confidence interval). For smoking, multivariable analyses were performed using multivariate (polytomous) logistic regression and the results are expressed as relative risk ratio (95% confidence interval). § P-value calculated on log-transformed values. <sup>a</sup>, adjusting for antihypertensive medication; <sup>b</sup>, adjusting for hypolipidemic medication; <sup>c</sup>, adjusting for antidiabetes medication.

**BMI**, body mass index; **SBP**, systolic blood pressure; **DBP**, diastolic blood pressure; **LDL**, low-density lipoprotein; **HDL**, high-density lipoprotein; **HOMA-IR**, homeostatic model assessment of insulin resistance; **high HOMA-IR** is defined as a HOMA-IR ≥ 2.6; **hypertension** is defined as SBP > 140 or DBP > 90 mm Hg or antihypertensive medication; **diabetes** is defined as fasting plasma glucose > 7.0 mmol/L or antidiabetes medication; **NA**, not assessable.