**Supplemental Table 1.**  Baseline descriptive characteristics of the ARIC subset with metabolomics profiling compared to those without.

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | With metabolomics profiling | No metabolomics profiling | p Value |
| N | 3904 | 11,404 |  |
| Age (SD) (years) | 53.5 (5.8) | 54.3 (5.7) | <0.0001 |
| African-American (%) | 61.3 | 14.9 | <0.0001 |
| Women (%) | 60.2 | 53.7 | <0.0001 |
| Prevalent CHD (%) | 4.6 | 4.5 | 0.79 |
| Current Smoking (%) | 27.0 | 25.5 | 0.051 |
| Diabetes (%) | 11.4 | 8.9 | <0.0001 |
| Hypertension (%) | 44.0 | 30.9 | <0.0001 |
| Systolic Blood Pressure (SD) (mm Hg) | 124.6 (20.8) | 120.2 (18.0) | <0.0001 |
| Diastolic Blood Pressure (SD) (mm Hg) | 76.7 (12.2) | 72.7 (10.8) | <0.0001 |
| Body Mass Index (SD) (kg/m2) | 28.7 (5.8) | 27.3 (5.1) | <0.0001 |
| Follow up time (SD) (years) | 21.8 (7.5) | 21.9 (7.5) | 0.34 |
| Incident Ischemic Stroke (%) | 8.9% | 7.3% | 0.0017 |

CHD: Coronary Heart Disease

**Supplemental Table 2.** Demographic and clinical characteristics of the CIRCULAS cohort

**Table 2A.** Discovery subsample

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Ischemic stroke (CIRCULAS) | Healthy controls | p Value |
| N | 74 | 72 |  |
| Age (SD) (years) | 72.5 (11.2) | 66.8 (12.9) | 0.006 |
| Women (%) | 44.6 | 61.1 | 0.049 |
| Blacks (%) | 0.0 | 0.0 | 1 |
| Prevalent CHD (%) | 17.6 | 6.9 | 0.076 |
| Smoking history (%) | 45.1 | 41.7 | 0.093 |
| Diabetes (%) | 20.3 | 2.8 | 0.001 |
| Hypertension (%) | 77.0 | 54.2 | 0.005 |
| eGFR (ml/min/1.73m2) | 79.8 (17.9) | 84.5 (14.3) | 0.112 |

**Table 2B:** Validation subsample

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | Ischemic stroke (CIRCULAS) | Healthy controls | p Value |
| N | 40 | 40 |  |
| Age (SD) (years) | 72.9 (9.9) | 72.4 (8.2) | 0.541 |
| Women (%) | 37.5 | 40.0 | 1 |
| Blacks (%) | 0.0 | 0.0 | 1 |
| Prevalent CHD (%) | 12.5 | 5.0 | 0.432 |
| Smoking history (%) | 42.5 | 35.0 | 0.494 |
| Diabetes (%) | 12.5 | 7.5 | 0.712 |
| Hypertension (%) | 65.0 | 50.0 | 0.258 |
| eGFR (ml/min/1.73m2) | 72.5 (21.3) | 83.3 (11.2) | 0.133 |

SD: standard deviation; CHD: Coronary Heart Disease; eGFR: estimated glomerular filtration rate.

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