***Supplementary materials***

**Soluble RAGEs and cardiovascular risk factors in adult offspring of patients with premature coronary heart disease**

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*Supplementary Table 1 Determinants of the difference between offspring and controls in* ***women*** *(n =183) – results of multivariate logistic regression analysis*

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|  | **Odds ratio (95% CI)** | ***p* value** |
| Age (years) | 0.96 (0.90 to 1.03) | 0.25 |
| Systolic BP (mmHg) | 0.99 (0.95 to 1.02) | 0.44 |
| BMI (kg/m2) | 0.99 (0.91 to 1.08) | 0.85 |
| Glycaemia (mmol/l) | 0.90 (0.32 to 2.49) | 0.82 |
| LDL (>2.5mmol/l vs. lower values) | 3.05 (1.46 to 6.38) | 0.0030 |
| Current smoking | 2.41 (1.13 to 5.16) | 0.029 |
| Aortic PWV (4th quartile vs. others) | 3.12 (1.22 to 7.98) | 0.017 |
| sRAGE (1st quartile vs. others) | 3.78 (1.67 to 8.54) | 0.0014 |
| ABI (<1 vs. others) | 1.29 (0.37 to 4.51) | 0.69 |

Systolic BP= Systolic Blood Pressure; BMI = Body Mass Index; LDL = Low density lipoprotein; PWV =Pulse Wave Velocity, sRAGE = soluble Receptors for Advanced Glycation Endproducts; ABI= ankle/brachial index

*Supplementary Table 2 Determinants of the difference between offspring and controls in* ***men*** *(n =125) – results of multivariate logistic regression analysis*

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|  | **Odds ratio (95% CI)** | ***p* value** |
| Age (years) | 1.00 (0.93 to 1.08) | 0.98 |
| Systolic BP (mmHg) | 1.01 (0.98 to 1.05) | 0.47 |
| BMI (kg/m2) | 0.95 (0.85 to 1.07) | 0.44 |
| Glycaemia (mmol/l) | 0.99 (0.41 to 2.37) | 0.99 |
| LDL (>2.5mmol/l vs. lower values) | 0.64 (0.27 to 1.50) | 0.30 |
| Current smoking | 2.16 (0.93 to 5.00) | 0.071 |
| Aortic PWV (4th quartile vs. others) | 2.00 (0.90 to 4.45) | 0.088 |
| sRAGE (1st quartile vs. others) | 1.66 (0.71 to 3.89) | 0.24 |
| ABI (<1 vs. others) | 2.51 (0.83 to 7.56) | 0.11 |

Systolic BP= Systolic Blood Pressure; BMI = Body Mass Index; LDL = Low density lipoprotein; PWV =Pulse Wave Velocity, sRAGE = soluble Receptors for Advanced Glycation Endproducts; ABI= ankle/brachial index

Supplementary Table 3 Characteristics of the study population in **non-smokers** (n=217)

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|  | **Offspring** | **Controls** | ***p* value** |
|  | n=71 | n=146 |  |
| Men, n (%) | 34 (47.9) | 49 (33.6) | 0.053 |
| Age, years | 29.1±6.4 | 28.5 ±4.9 | 0.39 |
| Height, cm | 174.4±8.4 | 173.4±9.1 | 0.44 |
| Weight, kg | 76.4±13.9 | 71.6±14.4 | 0.020 |
| BMI, kg/m² | 25.1±4.14 | 23.7±4.11 | 0.022 |
| Waist, cm | 85.2±11.8 | 80.3±11.2 | 0.0029 |
| WHR | 0.80±0.07 | 0.78±0.07 | 0.013 |
| Pathological waist, n (%) | 31 (43.7) | 45 (30.8) | 0.070 |
| Systolic BP, mmHg | 119.3±12.3 | 116.7±11.5 | 0.14 |
| Diastolic BP, mmHg | 79.6±8.9 | 77.0±8.6 | 0.040 |
| Arterial hypertension, n (%) | 12 (16.9) | 12 (8.2) | 0.066 |
| Antihypertensive therapy, n (%) | 2 (2.8) | 0 | 0.11 |
| Glycaemia, mmol/l | 4.86±0.44 | 4.78±0.37 | 0.15 |
| HbA1c (mmol/mol) | 33.8±3.1 | 34.6±2.6 | 0.15 |
| Diabetes mellitus, n (%) | 0 | 0 | 0 |
| Insulin, mIU/l | 6.4 (4.8-9.8) | 5.5 (3.9-7.5) | 0.041 |
| C-peptide, nmol/l | 0.49 (0.39-0.61) | 0.46 (0.35-0.53) | 0.068 |
| TAG, mmol/l | 0.97 (0.63-1.38) | 0.89 (0.67-1.08) | 0.15 |
| Total cholesterol, mmol/l | 4.80±1.06 | 4.50±0.74 | 0.032 |
| HDL cholesterol, mmol/l | 1.58±0.45 | 1.71±0.48 | 0.056 |
| LDL cholesterol, mmol/l | 2.79±0.86 | 2.40±0.68 | 0.0012 |
| Lipid lowering therapy, n (%) | 1 (1.4) | 0 | 0.33 |
| Creatinin, μmol/l | 74.9±13.2 | 76.4±11.9 | 0.41 |
| Regular physical activity, n (%) | 41 (57.7) | 81 (55.5) | 0.77 |
| ABI | 1.07±0.08 | 1.09±0.09 | 0.041 |
| Aortic PWV, m/s | 6.2±1.1 | 5.8±1.0 | 0.0020 |
| sRAGE, pg/ml | 1267.8±576.4 | 1475.3±517.6 | 0.0082 |

Values are arithmetic mean ± SD or proportions, i.e. n (%) or median (interquartile range)

BMI = Body Mass Index; WHR = Waist/Hips Ratio; Systolic BP= Systolic Blood Pressure; Diastolic BP=Diastolic Blood Pressure; HbA1c =glycated hemoglobin; TAG = Triglycerides; HDL = High density lipoprotein; LDL = Low density lipoprotein; ABI =Ankle Brachial Index; PWV = Pulse Wave Velocity; sRAGE = Soluble Receptors for Advanced Glycation Endproducts;

*Supplementary Table 4 Determinants of the difference between offspring and controls* ***in non-smokers****– results of multivariate logistic regression analysis*

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|  | **Odds ratio (95% CI)** | ***p* value** |
| Male gender (1,0) | 1.33 (0.66 to 2.69) | 0.42 |
| Age (years) | 1.00 (0.95 to 1.07) | 0.89 |
| Systolic BP (mmHg) | 1.00 (0.96 to 1.03) | 0.81 |
| BMI (kg/m2) | 1.00 (0.93 to 1.09) | 0.89 |
| Glycaemia (mmol/l) | 0.98 (0.51 to 1.88) | 0.70 |
| LDL (>2.5mmol/l vs. lower values) | 2.23 (1.18 to 4.21) | 0.013 |
| Aortic PWV (4th quartile vs. others) | 1.77 (0.87 to 3.62) | 0.12 |
| sRAGE (1st quartile vs. others) | 2.35 (1.17 to 4.71) | 0.016 |
| ABI (<1 vs. others) | 1.45 (0.61 to 3.43) | 0.40 |

Systolic BP= Systolic Blood Pressure; BMI = Body Mass Index; LDL = Low density lipoprotein; PWV =Pulse Wave Velocity, sRAGE = soluble Receptors for Advanced Glycation Endproducts; ABI= ankle/brachial index