**Supplementary Table I. Correlations with Cholesterol Mass Efflux Capacity and Traditional CVD Risk Factors (not in Table 2) Among Controls**

| | | | Cholesterol | | | |
|---|---|---|---|---|---|---|
| | Efflux Mass | BMI | Total | HDL | Triglycerides | HOMA IR |
| Efflux Mass | 1.00 | | | | | |
| | | | | | | |
| BMI | -0.002 | 1.00 | | | | |
| P value | 0.963 | | | | | |
| | | | | | | |
| Total Cholesterol | 0.08 | -0.07 | 1.00 | | | |
| P value | 0.036 | 0.057 | | | | |
| | | | | | | |
| HDL | 0.13 | -0.14 | 0.23 | 1.00 | | |
| P value | <0.001 | <0.001 | <0.001 | | | |
| | | | | | | |
| Triglycerides | -0.002 | 0.03 | 0.36 | -0.31 | 1.00 | |
| P value | 0.964 | 0.478 | <0.001 | <0.001 | | |
| | | | | | | |
| HOMA IR | -0.03 | 0.33 | -0.06 | -0.29 | 0.23 | 1.00 |
| P value | 0.484 | <0.001 | 0.117 | <0.001 | <0.001 | |
| | | | | | | |

**Supplemental Table II. Multivariable Linear Regression for Cholesterol Mass Efflux Capacity**

| | Efflux Mass (mg/dL) | |
|---|---|---|
| | β (95% CI) | P value |
| Age (yrs) | -0.02 [-0.03,-0.00] | 0.009 |
| Male | -0.03 [-0.32,0.27] | 0.845 |
| Race | | |
| Caucasian | Ref | |
| Chinese | 0.12 [-0.30,0.54] | 0.573 |
| African American | -0.06 [-0.42,0.31] | 0.763 |
| Hispanic | 0.14 [-0.23,0.50] | 0.471 |
| BMI | 0.01 [-0.03,0.04] | 0.764 |
| Diabetes | 0.24 [-0.15,0.63] | 0.220 |
| Alcohol | | |
| Never | ref | |
| Former | 0.16 [-0.26,0.59] | 0.451 |
| Current | 0.27 [-0.10,0.64] | 0.150 |
| Statins | -0.07 [-0.42,0.28] | 0.704 |
| Total Cholesterol | 0.002 [-0.00,0.01] | 0.266 |
| HDL Cholesterol | 0.02 [0.01,0.03] | 0.006 |
| Systolic BP | 0.01 [-0.00,0.01] | 0.075 |
| Hypertension Medication | 0.005 [-0.28,0.29] | 0.974 |
| Current Smoker | -0.05 [-0.42,0.32] | 0.782 |

$R^2$ = 0.04 for full model.

**Supplementary Table III. Conditional Logistic Regression Models for Plaque Progression for Model 2 with all Covariates**

| | Plaque Progression (N=814; Events=407) | |
|---|---|---|
| | **OR (95% CI)** | p |
| Age (yrs) | 1.01 [0.93,1.10] | 0.783 |
| Race | | |
| Caucasian | ref | |
| Chinese | 0.28 [0.15,0.50] | **<0.001** |
| African American | 0.52 [0.33,0.82] | **0.005** |
| Hispanic | 0.74 [0.47,1.17] | 0.197 |
| BMI | 0.99 [0.96,1.02] | 0.568 |
| MESA Field Center | | |
| Wake Forest | ref | |
| Columbia | 1.47 [0.82,2.65] | 0.193 |
| John's Hopkins | 1.40 [0.77,2.57] | 0.270 |
| Minnesota | 2.21 [1.17,4.18] | 0.014 |
| Northwestern | 1.53 [0.85,2.74] | 0.153 |
| UCLA | 2.01 [1.05,3.83] | 0.034 |
| Diabetes | | |
| Normal | Ref | |
| IFG | 1.12 [0.72,1.73] | 0.616 |
| Untreated Diabetes | 3.58 [0.89,14.40] | 0.072 |
| Treated Diabetes | 2.08 [1.11,3.88] | **0.022** |
| Current Smoker | 2.50 [1.47,4.26] | **0.001** |
| Total Cholesterol | 1.01 [1.00,1.01] | **0.026** |
| HDL Cholesterol | 0.99 [0.97,1.00] | **0.017** |
| Statin Use | 1.01 [0.63,1.61] | 0.979 |

| | | |
|---|---|---|
| Hypertension Medication | 0.96 [0.66,1.39] | 0.818 |
| Systolic BP | 1.02 [1.01,1.02] | **0.001** |
| Efflux Mass (mg/dL) (per SD=1.9) | 1.20 [1.02,1.42] | **0.030** |

**Supplementary Table IV. Conditional Logistic Regression Models for Incident Hard CVD for Model 2 with all Covariates**

| | **Incident Hard CVD (N=930; Events=465)** | |
|---|---|---|
| | **OR (95% CI)** | p |
| Age (yrs) | 1.19 [1.11,1.29] | **<0.001** |
| Race | | |
| Caucasian | ref | |
| Chinese | 0.65 [0.37,1.13] | 0.126 |
| African American | 0.93 [0.61,1.41] | 0.735 |
| Hispanic | 0.91 [0.58,1.43] | 0.696 |
| BMI | 1.02 [0.99,1.06] | 0.144 |
| MESA Field Center | | |
| Wake Forest | ref | |
| Columbia | 0.90 [0.51,1.59] | 0.714 |
| John's Hopkins | 0.75 [0.44,1.27] | 0.285 |
| Minnesota | 1.37 [0.76,2.46] | 0.296 |
| Northwestern | 0.69 [0.39,1.21] | 0.192 |
| UCLA | 0.79 [0.44,1.40] | 0.418 |
| Diabetes | | |
| Normal | Ref | |
| IFG | 1.05 [0.70,1.59] | 0.800 |
| Untreated Diabetes | 0.83 [0.38,1.81] | 0.644 |
| Treated Diabetes | 2.35 [1.48,3.73] | **<0.001** |
| Current Smoker | 1.72 [1.12,2.63] | **0.013** |
| Total Cholesterol | 1.00 [1.00,1.01] | 0.211 |
| HDL Cholesterol | 0.99 [0.98,1.01] | 0.319 |
| Statin Use | 0.86 [0.58,1.28] | 0.459 |

| | | |
|---|---|---|
| Hypertension Medication | 1.34 [0.97,1.86] | 0.080 |
| Systolic BP | 1.01 [1.01,1.02] | **<0.001** |
| Efflux Mass (mg/dL) (per SD=1.9) | 0.80 [0.68,0.94] | **0.006** |

**Supplemental Table V: Conditional Logistic Regression Model for Incident CHD for Model 2 with all Covariates**

| | CHD (N=540; Events=270) | |
|---|---|---|
| | **OR (95% CI)** | **P value** |
| Age (yrs) | 1.18 [1.07,1.31] | 0.001 |
| Race | | |
| Caucasian | ref | |
| Chinese | 0.67 [0.33,1.39] | 0.285 |
| African American | 0.90 [0.52,1.54] | 0.690 |
| Hispanic | 0.76 [0.42,1.38] | 0.372 |
| BMI | 1.03 [0.98,1.07] | 0.237 |
| Site | | |
| Wake Forest | ref | |
| Columbia | 1.26 [0.58,2.71] | 0.556 |
| John's Hopkins | 0.76 [0.38,1.52] | 0.433 |
| Minnesota | 1.48 [0.66,3.32] | 0.343 |
| Northwestern | 0.77 [0.38,1.58] | 0.478 |
| UCLA | 1.06 [0.49,2.27] | 0.887 |
| Diabetes | 1.86 [1.04,3.32] | 0.036 |
| Current Smoker | 3.21 [1.71,6.05] | <0.001 |
| Total Cholesterol | 1.00 [0.99,1.01] | 0.718 |
| HDL Cholesterol | 1.00 [0.99,1.02] | 0.771 |
| Statin Use | 1.13 [0.67,1.89] | 0.642 |
| Hypertension Medication | 1.31 [0.87,1.97] | 0.190 |
| Systolic BP | 1.01 [1.00,1.02] | 0.009 |
| Efflux Mass (mg/dL) (per SD=1.9) | 0.69 [0.55,0.86] | 0.001 |

**Supplemental Table VI: Conditional Logistic Regression Model for Incident Stroke for Model 2 with all Covariates**

| | Stroke (N=390; Events=195) | |
|---|---|---|
| | **OR (95% CI)** | **P value** |
| Age (yrs) | 1.20 [1.07,1.36] | 0.003 |
| Race | | |
| Caucasian | ref | |
| Chinese | 0.83 [0.33,2.10] | 0.688 |
| African American | 1.08 [0.54,2.15] | 0.831 |
| Hispanic | 1.48 [0.69,3.15] | 0.310 |
| BMI | 1.03 [0.98,1.09] | 0.222 |
| Site | | |
| Wake Forest | ref | |
| Columbia | 0.71 [0.27,1.86] | 0.488 |
| John's Hopkins | 0.68 [0.26,1.80] | 0.440 |
| Minnesota | 1.39 [0.48,4.02] | 0.539 |
| Northwestern | 0.63 [0.23,1.76] | 0.378 |
| UCLA | 0.46 [0.17,1.23] | 0.122 |
| Diabetes | 2.30 [1.08,4.90] | 0.030 |
| Current Smoker | 0.84 [0.44,1.59] | 0.582 |
| Total Cholesterol | 1.01 [0.99,1.02] | 0.365 |
| HDL Cholesterol | 0.98 [0.96,1.01] | 0.133 |
| Statin Use | 0.46 [0.22,0.96] | 0.039 |
| Hypertension Medication | 1.22 [0.71,2.12] | 0.472 |
| Systolic BP | 1.02 [1.00,1.03] | 0.005 |
| Efflux Mass (mg/dL) (per SD=1.9) | 0.99 [0.77,1.27] | 0.951 |

**Supplemental Table VII: Dose response analysis of the association between CMEC and plaque progression. Possible values for plaque progression were integers ranging from 0 to 10 (based on a plaque score ranging from 0 to 12).[19] Progression=0 are the controls and are not included in the dose response analysis. Groups were defined as follows: 1=1; 2=2; 3-10 =3; >3 the groups were sparse and therefore considered as one category.**

| | **Cholesterol Mass Efflux Capacity (CMEC)** | |
|---|---|---|
| Amount of Plaque Progression | Mean ± SD | P value |
| All Cases of Plaque Progression | 2.8 ± 1.8 (n=407) | 0.162 |
| 1 | 3.2 ± 1.9 (n=169) | |
| 2 | 2.8 ± 1.8 (n=98) | |
| >3 | 3.1 ± 2.0 (n=140) | |