**Table S3. Clinical characteristics of patients with heart failure and control subjects**

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|  | Control (n=270) | Heart failure (n=119) | P-value |
| Age (years) | 57.3±4.8 | 64.3±5.7 | <0.001 |
| Body mass index (kg/m2) | 26.7±3.6 | 30.3±6.0 | <0.001 |
| Former/current smokers, n (%) | 159 (58.9) | 85 (71.4) | 0.092 |
| Systolic blood pressure (mmHg) | 134.5±14.9 | 143.3±17.7 | <0.001 |
| Diastolic blood pressure (mmHg) | 86.9±8.9 | 85.2±10.1 | 0.099 |
| Hypertension, n (%) | 33 (12.2) | 55 (46.2) | <0.001 |
| Diabetes mellitus, n (%) | 10 (3.7) | 41 (34.5) | <0.001 |
| Coronary artery disease, n (%) | 0 (0.0) | 63 (52.9) | <0.001 |
| Arrhythmia, n (%) | 2 (0.7) | 15 (12.6) | <0.001 |
| NYHA Fc III-IV, n (%) |  | 79 (66.4) |  |
| Antiplatelets, n (%) | 3 (1.1) | 58 (48.7) | <0.001 |
| ACEi or ARB, n (%) | 29 (10.7) | 74 (62.2) | <0.001 |
| Beta-blocker, n (%) | 8 (3.0) | 85 (71.4) | <0.001 |
| Diuretics, n (%) | 18 (6.7) | 58 (48.7) | <0.001 |
| Statins, n (%) | 45 (16.7) | 79 (66.4) | <0.001 |
| Nitrates, n (%) | 1 (0.4) | 30 (25.2) | <0.001 |
| Left ventricular ejection fraction (%) |  | 42.4±14.7 |  |
| Glucose (mg/dL) | 103.9±10.8 | 117.3±29.6 | <0.001 |
| eGFR (mL/min/1.73 m2) | 88.1±12.4 | 82.2±20.4 | <0.001 |
| LDL cholesterol (mg/dL) | 134.7±29.1 | 105.9±38.6 | <0.001 |
| HDL cholesterol (mg/dL) | 58.1±15.9 | 50.0±13.7 | <0.001 |
| ProBNP (pg/mL) |  | 3900.3±3785.4 |  |
| Hs-CRP (mg/L) | 1.80±2.08 | 3.16±3.47 | <0.001 |

NYHA Fc=the New York Heart Association functional classification, ACEi=angiotensin-converting enzyme inhibitor, ARB=angiotensin II receptor blocker, eGFR=estimated glomerular filtration rate, LDL=low-density lipoprotein, HDL= high-density lipoprotein, ProBNP=pro-B-type natriuretic peptide, GPNMB=glycoprotein non-metastatic melanoma protein B. Clinical characteristics of HF cases and non-HF controls were compared using t-tests for continuous variables and Fisher exact tests for categorical variables.