

Supplemental Table 1: list of the 24 SNPs included in the *NPPB – NPPA* gene candidate analysis

Rs name	chr	pos	A1	A2	N0	N1	N2	NAs	callrate	maf	hz
rs2272803	1	11898789	T	G	3	130	1442	0	1.000	0.043	0.083
rs1023252*	1	11899033	T	G	128	603	844	0	1.000	0.273	0.383
rs198415	1	11901592	C	T	23	348	1201	3	0.998	0.125	0.221
rs61764042	1	11905059	G	A	3	76	1496	0	1.000	0.026	0.048
rs5065	1	11906068	G	A	27	364	1184	0	1.000	0.133	0.231
rs198370	1	11906981	C	T	8	234	1327	6	0.996	0.080	0.149
rs61757261	1	11907430	G	T	0	4	1571	0	1.000	0.001	0.003
rs5063	1	11907648	T	C	4	141	1430	0	1.000	0.047	0.090
rs198372	1	11909514	A	G	20	358	1197	0	1.000	0.126	0.227
rs149772863	1	11917720	A	G	0	5	1570	0	1.000	0.002	0.003
rs35640285	1	11918379	A	C	0	8	1567	0	1.000	0.003	0.005
rs5229	1	11918519	T	C	0	13	1562	0	1.000	0.004	0.008
rs198389*	1	11919271	G	A	295	786	493	1	0.999	0.437	0.499
rs79712000	1	11924030	C	T	2	112	1461	0	1.000	0.037	0.071
rs6676300*	1	11925300	G	A	224	751	599	1	0.999	0.381	0.477
rs4846061	1	11926350	A	C	4	165	1405	1	0.999	0.055	0.105
rs74714707	1	11926758	T	C	2	111	1462	0	1.000	0.037	0.070
rs12562952	1	11927056	C	T	11	288	1276	0	1.000	0.098	0.183
rs9661078	1	11936324	C	A	209	805	559	2	0.999	0.389	0.512
rs11804222	1	11936514	A	G	14	320	1240	1	0.999	0.111	0.203
rs79593079	1	11936644	T	C	2	129	1444	0	1.000	0.042	0.082
rs7554327	1	11937404	T	C	375	829	371	0	1.000	0.499	0.526
rs4846066	1	11938050	A	G	208	803	560	4	0.997	0.388	0.511
rs72864766	1	11938399	A	G	4	145	1426	0	1.000	0.049	0.092

SNP, single nucleotide polymorphism; Chr, chromosome; pos, position; A1, allele 1; A2, allele 2; N0, number of homozygotes for A1; N1, number of heterozygotes; N2, number of homozygotes for A2, NAs, number of missing data; MAF, minor allele frequency; hz, heterozygosity, * these SNPs were also identified in the GWAS.

Supplemental Table 2 : Characteristics of the subjects not included in the study (n=150)

Characteristics	Mean \pm sd / n (%)
Age (years)	49.77 \pm 13.54
Sex female	78 (52.00%)
Current smoker	38 (25.50%)
BMI (kg/m ²)	26.85 \pm 5.41
Diabetes	2 (1.40%)
Fasting glycemia (g/L)	0.88 \pm 0.11
Glycated hemoglobin (%)	5.57 \pm 0.36
eGFR (mL/min/1.73m ²)	96.38 \pm 13.44
Urinary sodium (mmol/L)	109.31 \pm 43.59
Heart Rate (bpm)	62.70 \pm 9.91
SBP (mmHg)	121.04 \pm 11.03
DBP (mmHg)	74.66 \pm 8.27
Hypertension	62 (41.33%)
Any CV conditions*	4 (2.67%)

Heart failure	1 (0.67%)
Myocardial infarction	0 (0.00%)
Stroke	2 (1.33%)
Valvular disease	2 (1.33%)
Septal e' (cm/s)	9.61 ± 2.79
Lateral e' (cm/s)	12.74 ± 4.11
e/a	1.19 ± 0.44
e/e'	6.55 ± 1.65
LAVI (mL)	23.34 ± 7.68
Deceleration time	204.31 ± 53.56
NT-proBNP levels according to category of subjects (arbitrary PEA units)	
Healthy (n=87)	3.54 ± 1.00
Hypertension (n=59)	3.74 ± 1.08
Any CV conditions* (n=4)	4.11 ± 1.07

*Any CV conditions included Heart failure, Myocardial infarction, Stroke and Valvular diseases.

Supplemental Table 3: Covariate effects in the linear model for plasma NT-proBNP levels

	Univariate model			Multivariate model		
	Estimate	SD	P value	Estimate	SD	P value
Sex (female)	0.536	0.044	<0.001	0.026	0.002	<0.001
Age	0.028	0.002	<0.001	0.556	0.0504	<0.001
BMI	-0.011	0.008	0.025	-0.006	0.005	0.224
eGFR	-0.006	0.002	0.003	-0.006	0.002	0.003
HR	-0.016	0.002	<0.001	-0.015	0.002	<0.001
SBP	-0.005	0.002	0.056	-0.003	0.002	0.220
Urinary Na	0.00087	0.00050	0.08	0.0015	0.0005	0.005

SD, standard deviation; BMI, Body Mass Index; eGFR, estimated Glomerular Filtration Rate; SBP, Systolic Blood Pressure; Urinary Na, urinary sodium

Supplemental Table 4: Variance decomposition for plasma NT-proBNP levels for all included subjects

	Heritability	Common environmental effect	Covariate effects	Residual variance
Model 1	16.31	1.64	19.83	62.20
Model 2	15.11	0.65	22.97	61.27

Model 1, covariates are age and sex; Model 2, covariates are age, sex, eGFR, heart rate and urinary sodium

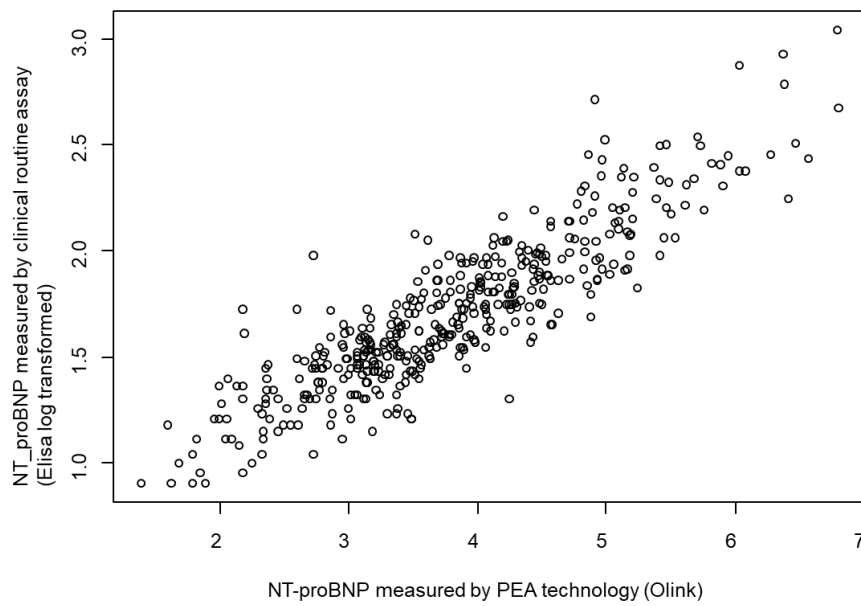
Supplemental Table 5: Variance decomposition for plasma NT-proBNP levels among healthy subjects

	Heritability	Common environmental effect	Covariate effects	Residual variance
Model 1	16.23	0.00	20.66	63.10
Model 2	15.95	0.00	23.31	60.73

Model 1, covariates are age and sex; Model 2, covariates are age, sex, eGFR, heart rate and urinary sodium

Supplemental table 6: Correlations between the gene expressions of the gene cluster.

		Correlation Coefficient				
		NPPB	NPPA	MTHFR	CLCN6	C1orf167
P value	NPPB		0.049	-0.016	5.10 ⁻⁴	0.090
	NPPA	0.25		-0.030	-0.062	0.167
	MTHFR	0.71	0.49		0.073	-0.026
	CLCN6	0.99	0.14	0.08		0.065
	C1orf167	0.06	<0.001	0.54	0.13	



Supplemental Figure 1: Comparison between measured by clinical routine assays and the PEA technology