Supplemental Material

Altered Cardiac Repolarization in Association with Air Pollution and Air Temperature in Myocardial Infarction Survivors

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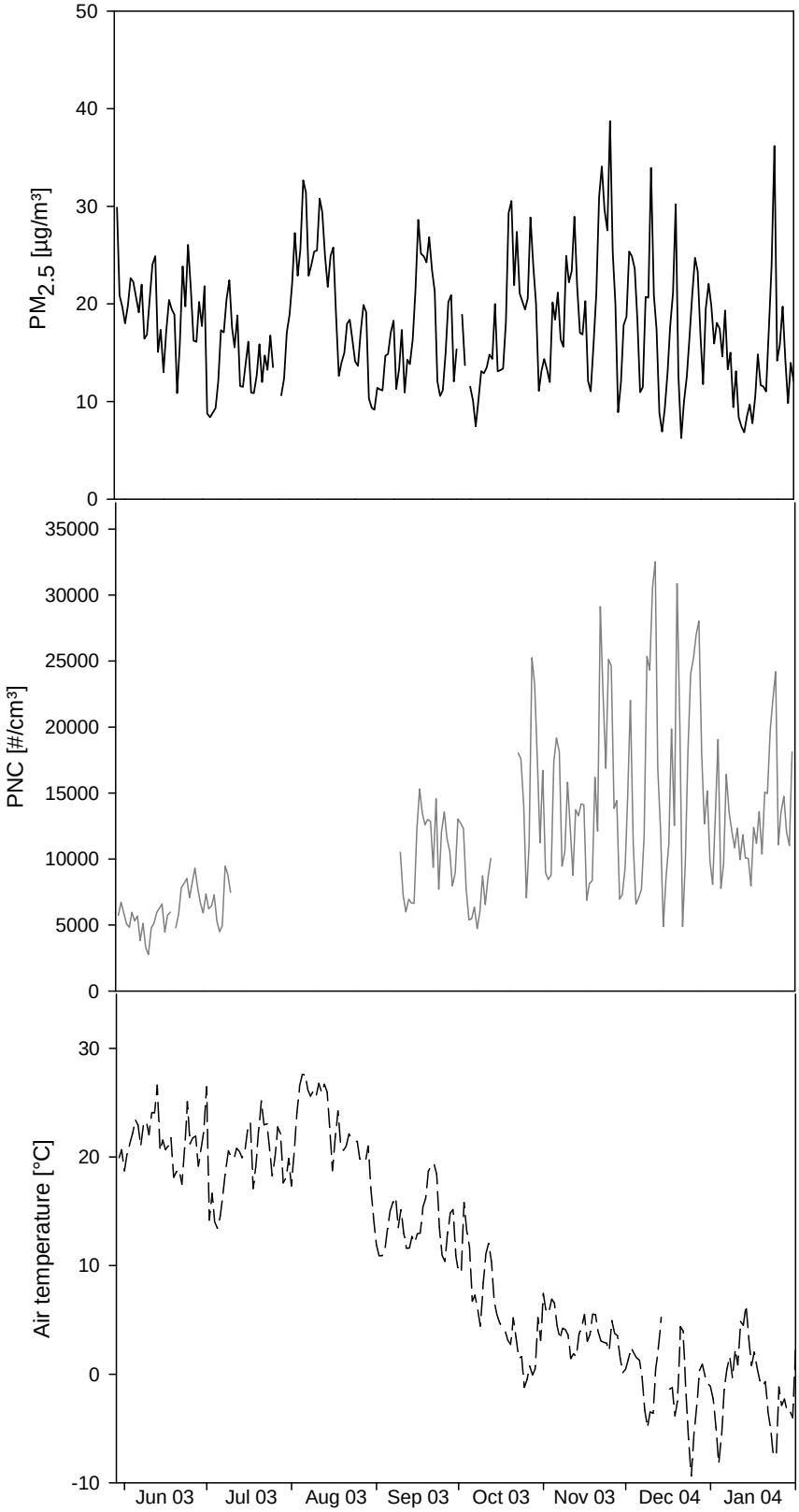
Supplemental Material, Table 1. Description of daily concentration of air pollutants and meteorological variables between May 2003 and February 2004 (absolute correlations coefficients larger than 0.5 are highlighted in grey).

	Site	N	Mean (±SD)	Min.	25%	Median	75%	Max.	IQR	IQR_5	Spearman correlation coefficient							
											PM_{10}	$PM_{10-2.5}$	$PM_{2.5}$	PNC	NO_2	CO	Temp.	Rel. hum.
PM_{10} [µg/m³]		247	33.4 (±13.2)	7.1	23.0	33.0	42.4	70.9	19.5	11.9	1							
$PM_{10-2.5}$ [µg/m³]		243	15.8 (± 7.7)	-0.8	9.9	15.9	20.8	34.7	10.9	6.6	0.96	1						
$PM_{2.5}$ [µg/m³]		244	17.7 (±6.2)	6.2	12.9	17.1	21.3	38.7	8.4	6.3	0.93	0.80	1					
PNC [#/cm³]		176	11809 (±6253)	2764	7019	10447	14500	32528	7481	6975	0.37	0.36	0.32	1				
NO_2 [µg/m³]		248	40.7 (± 10.8)	15.4	33.1	40.0	47.0	71.9	14.0	9.6	0.64	0.67	0.55	0.52	1			
CO [mg/m³]		248	0.6 (±0.2)	0.3	0.4	0.5	0.7	1.7	0.2	0.2	0.58	0.55	0.56	0.74	0.63	1		
Air temperature [°C]		246	10.8 (±9.9)	-9.4	2.0	11.2	20.5	27.6	18.4	18.3	0.16	0.17	0.14	-0.64	0.11	-0.45	1	
Relative humidity [%]		246	69.1 (±14.5)	41.3	56.2	68.7	81.6	93.4	25.5	21.9	-0.16	-0.18	-0.15	0.29	-0.27	0.36	-0.77	1
Barom. pressure [hPa]		246	1018.2 (±6.9)	991.0	1014.7	1019.2	1023.0	1031.2	8.3	6.6	0.21	0.23	0.15	0.02	0.22	0.03	0.19	-0.32



Supplemental Material, Figure 1. Time series of PM2.5, PNC and air temperature in Augsburg, Germany between May 30th 2003 and February 1st 2004 ($PM_{2.5}$: particulate matter with a diameter below 2.5µm, PNC: particle number concentration with a size range of 0.01 to 0.1µm in diameter.

Supplemental Material, Table 2. SNPs with a significant influence on the variability of ECG parameters.

Outcome	Gene	SNP	Minor allele	Major allele	Distribution in study population N (%) Homozygous minor allele	Heterozygous	Homozygous major allele	MAF %	p-value[*]
HR	*NFE2L2*	rs1962142	A	G	0 (0)	20 (30)[#]	67 (70)	14.9	1.57E-04
QTc	*NFE2L2*	rs10183914	T	C	9 (13)[#]	25 (37)	33 (49)	32.1	4.77E-04
	NFE2L2	rs2364725	G	T	19 (28)	28 (42)	20 (30)[#]	49.3	6.78E-07
	HFE	rs1799945	G	C	1 (2)	16 (24)	49 (74)[#]	13.6	2.11E-04
Tamp	*NFE2L2*	rs10183914	T	C	9 (13)	25 (37)[#]	33 (49)	32.1	1.59E-06
	NFE2L2	rs1806649	T	C	6 (9)	22 (33)[#]	39 (58)	25.4	4.44E-16
	NFE2L2	rs1962142	A	G	0 (0)	20 (30)[#]	67 (70)	14.9	7.15E-09
	NFE2L2	rs2364725	G	T	19 (28)	28 (42)	20 (30)[#]	49.3	3.04E-14
	GSTM1		-	-	-	-	-[**]	45.3[***]	4.44E-15
	GSTP1	rs4891	C	T	8 (12)	30 (45)[#]	29 (43)	34.3	1.31E-06
	GSTP1	rs1695	G	A	7 (10)	29 (29)[#]	31 (46)	32.1	2.92E-07
	GSTP1	rs6591256	G	A	15 (22)	31 (46)	21 (31)[#]	45.5	2.22E-16
	CYP1A1	rs2606345	C	A	4 (6)[#]	31 (46)	32 (48)	29.1	5.47E-06

SNP: Single nucleotide polymorphism, MAF: minor allele frequency, HR: Heart rate, QTc: Bazett-corrected QT-interval, Tamp: T-wave amplitude, [#]Indicates subgroup with highest variability in ECG parameter, [*]Taking multiple testing into account led to a significance level of 0.003125, [**]Homozygous carriers of deletion showed a higher variability in Tamp, [**]Percentage of homozygous carriers of deletion