

## Supplementary data 2

### Tables and abbreviations

<i>Abbreviation</i>	<i>Description</i>	<i>Unit</i>
-	age	years
ApoA <sub>1</sub>	serum apolipoprotein A <sub>1</sub>	mg/dl
ApoA <sub>2</sub>	serum apolipoprotein A <sub>2</sub>	mg/dl
ApoB	serum apolipoprotein B-100	mg/dl
Chol	serum total cholesterol	mmol/l
CPept	serum C-peptide	nmol/l
DBP	diastolic blood pressure	mmHg
DMDur	duration of type 1 diabetes	years
HbA <sub>1c</sub>	glycosylated hemoglobin	%
HDL <sub>2</sub> C	serum high-density lipoprotein 2 cholesterol	mmol/l
HDL <sub>3</sub> C	serum high-density lipoprotein 3 cholesterol	mmol/l
Ins	insulin dose	U/kg
SBP	systolic blood pressure	mmHg
sCreat	serum creatinine	μmol/l
sK	serum potassium	mmol/l
sNa	serum sodium	mmol/l
TG	serum triglycerides	mmol/l
24h-uAlb	24h-urine albumin excretion	mg
24h-uCreat	24h-urine creatinine excretion	mmol
24h-uK	24h-urine potassium excretion	mmol
24h-uNa	24h-urine sodium excretion	mmol
24h-uUrea	24h-urine urea excretion	mmol
Waist	waist circumference	cm

**Table 1** Descriptions of clinical and biochemical variables.

#### *Metabolic syndrome*

- waist  $\geq$  102 cm (men),  
waist  $\geq$  88 cm (women)
- triglycerides  $\geq$  1.7 mmol/l
- HDL-cholesterol  $<$  1.0 mmol/l (men),  
HDL-cholesterol  $<$  1.3 mmol/l (women)
- blood pressure  $\geq$  130/85 mmHg (either systolic or diastolic suffices)
- fasting glucose positive for all type 1 diabetic patients

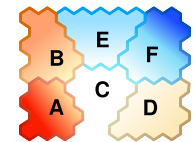
**Table 2** Clinical criteria for the diagnosis of the metabolic syndrome. The five points are based on the NCEP ATP III recommendations, except that hyperglycemia was considered positive by default. Furthermore, the data on lipid lowering or anti-hypertensive treatment was excluded since here we are primarily interested in the current metabolic state, with the effect of medications reflected in the biochemistry. HDL-cholesterol was obtained by adding HDL<sub>2</sub>C and HDL<sub>3</sub>C.

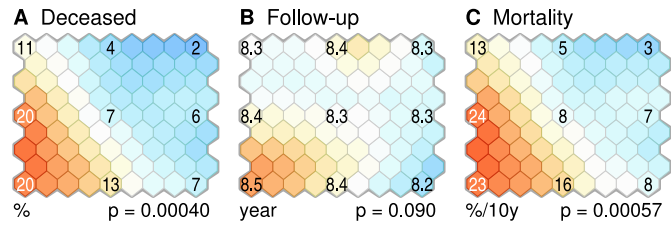
	<b>A</b> $n = 75$		<b>B</b> $n = 115$		<b>C</b> $n = 89$		<b>D</b> $n = 91$		<b>E</b> $n = 119$		<b>F</b> $n = 124$		ALL $n = 613$	
	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$	$x_{50}$	$x_{16} - x_{84}$
Age	37	29 - 51	41	30 - 51	40	28 - 50	42	28 - 51	37	28 - 51	39	27 - 53	39	28 - 51
DMDur	25	18 - 33	28	18 - 38	27	16 - 37	25	17 - 37	27	18 - 35	24	17 - 36	26	17 - 36
DBP	83	71 - 93	80	70 - 92	81	70 - 91	82	72 - 90	79	70 - 86	80	70 - 89	80	70 - 90
SBP	139	120 - 158	140	120 - 161	136	121 - 151	139	120 - 160	130	120 - 150	132	120 - 150	136	120 - 155
Waist	94	79 - 108	86	75 - 98	87	77 - 97	86	75 - 96	81	70 - 95	83	73 - 96	85	74 - 99
Ins	0.75	0.53 - 1.01	0.67	0.47 - 0.89	0.70	0.53 - 0.93	0.70	0.51 - 0.91	0.69	0.48 - 0.90	0.62	0.45 - 0.86	0.68	0.49 - 0.92
CPept	0	0 - 0.01	0	0 - 0.02	0	0 - 0	0	0 - 0.01	0	0 - 0.02	0	0 - 0.01	0	0 - 0.01
ApoA <sub>1</sub>	133	118 - 165	133	112 - 157	137	116 - 161	147	123 - 178	135	118 - 152	142	122 - 163	137	118 - 162
ApoB	114	93 - 134	95	69 - 116	100	84 - 115	102	78 - 133	79	63 - 97	86	69 - 105	94	72 - 116
HbA <sub>1c</sub>	9.2	7.8 - 11.3	8.6	7.3 - 10.4	8.9	7.3 - 9.9	8.3	7.2 - 9.3	8.2	7.3 - 9.3	8.2	6.9 - 9.1	8.5	7.2 - 9.8
HDL <sub>2</sub> C	0.34	0.23 - 0.65	0.45	0.26 - 0.73	0.52	0.29 - 0.76	0.60	0.27 - 0.86	0.54	0.33 - 0.74	0.55	0.34 - 0.82	0.51	0.29 - 0.77
HDL <sub>3</sub> C	0.63	0.49 - 0.79	0.65	0.52 - 0.86	0.67	0.57 - 0.80	0.72	0.57 - 0.89	0.71	0.56 - 0.89	0.75	0.61 - 0.94	0.69	0.56 - 0.88
Chol	5.84	4.74 - 6.91	4.94	3.79 - 5.72	5.16	4.35 - 5.99	5.65	4.76 - 6.5	4.49	3.76 - 5.22	4.91	4.03 - 5.60	5.05	4.11 - 6.01
TG	2.82	2.23 - 3.9	1.21	0.78 - 1.79	1.47	1.17 - 1.94	1.26	0.83 - 1.79	0.84	0.62 - 1.09	0.84	0.68 - 1.07	1.12	0.72 - 2.08
sK	4.5	4.0 - 5.1	4.4	4.2 - 4.9	4.4	4.0 - 4.8	4.3	3.9 - 4.8	4.3	4.0 - 4.7	4.3	3.9 - 4.7	4.4	4.0 - 4.8
sNa	139	135 - 143	139	136 - 144	140	134 - 143	141	137 - 145	140	136 - 143	141	137 - 144	140	136 - 144
sCreat	116	79 - 271	96	78 - 158	96	79 - 135	92	75 - 123	87	73 - 106	88	77 - 107	92	77 - 135
24h-uAlb	356	11 - 1996	199	7 - 1600	42	6 - 528	38	7 - 364	16	6 - 210	13	6 - 84	37	7 - 734
24h-uK	52	37 - 79	50	37 - 75	56	40 - 81	52	35 - 73	52	32 - 76	53	36 - 88	53	37 - 79
24h-uNa	89	58 - 141	96	56 - 138	102	68 - 150	101	59 - 141	85	49 - 143	98	58 - 156	96	58 - 143
24h-uCreat	11.0	8.0 - 15.1	11.3	8.6 - 15.4	12.3	9.1 - 16.2	12.0	8.1 - 17.1	11.5	8.1 - 15.8	12.1	8.7 - 15.8	11.7	8.5 - 16.0
24h-uUrea	234	177 - 379	245	153 - 372	261	181 - 420	246	138 - 406	258	150 - 422	265	168 - 412	249	160 - 412

■  $p < 0.0001$  □  $p < 0.01$

**Table 3** Clinical characteristics of the SOM map districts. The patient groupings were obtained from the <sup>1</sup>H NMR spectra, but all the above data are measured by non-NMR methods. In the table, columns marked by  $x_{50}$  contain the median values (50th percentile) whereas the  $x_{16}$  and  $x_{84}$  represent the 16th and 84th percentiles, respectively. For normally distributed values this corresponds to  $\pm$  one standard deviation.

P-values were calculated for each variable in each grouping by comparing the group-specific distributions to the combined set of the other five groups, that is, we tested each variable whether it is distinctive for a given grouping. The Kolmogorov-Smirnov test for two empirical distributions was used to compute the p-values.





**Figure 1** Number of deaths, follow-up period and mortality. **(A)** Estimated proportions of deceased patients on the self-organizing map from the  $613 \times 2$   $^1\text{H}$  NMR spectra of serum. **(B)** Estimated follow-up periods in different map regions. Only patients that were alive (91%) were used to avoid bias from end-points. **(C)** 10-year mortality estimates based on the two previous colorings.