

Supplementary Material

Multi-ethnic analysis reveals soluble L-selectin may be post-transcriptionally regulated by 3'UTR polymorphism: the Multi-Ethnic Study of Atherosclerosis (MESA)

Human Genetics

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Table S1 Population characteristics of the race/ethnicity stratified random sample

Characteristics	Non-Hispanic whites	Chinese	African	Hispanic	<i>p</i> value
N	620	600	579	604	
Age, years	63±10	63±10	63±9.8	63±10	0.45
Sex, % females	52	51	55	54	0.44
Body mass index, kg/m ²	28±5.3	24±3.3	30±5.7	30±5.2	<0.001
Total cholesterol, mg/dl	19±37	190±31	189±36	196±36	0.007
HDL cholesterol, mg/dl	54±17	50±13	54±15	48±13	<0.001
LDL cholesterol, mg/dl	115±34	112±28	115±33	116±31	0.18
Triglycerides, mg/dl	131±75	148±94	107±75	156±99	<0.001
Antilipidemic therapy, % yes	23	19	20	20	<0.001
Diabetes mellitus, % yes	9	16	20	22	<0.001
Systolic blood pressure, mmHg	122 (19)	121 (20)	129 (22)	125 (21)	<0.0001
Diastolic blood pressure, mmHg	69 (9.5)	69 (9.7)	73 (10)	70 (10)	<0.0001
Hypertension, % yes	37	37	57	45	<0.001
Current smokers, % yes	15	6	17	11	<0.001
Current use of alcohol, % yes	70	30	46	43	<0.0001
CAC > 0, % yes	61	52	46	53	<0.001
CAC categories, Agatston score					<0.0001
< 50, n (%)	349 (62%)	377 (67%)	391 (75%)	381 (69%)	
50-149, n (%)	62 (11%)	76 (14%)	49 (9.3%)	64 (12%)	
150-399, n (%)	68 (12%)	62 (11%)	36 (6.9%)	47 (8.6%)	
> 400, n (%)	86 (15%)	45 (8.0%)	49 (9.3%)	56 (10%)	
Common carotid intima-medial thickness, mm	0.71±0.21	0.68±0.19	0.75±0.21	0.69±0.19	<0.001
CHD events, n (%) thru 2012	42 (6.8)	22 (3.7)	26 (4.5)	41 (6.8)	-
L-selectin levels, mean (SD) ng/mL	956±215	834±174	867±192	904±195	<0.001

CAC coronary artery disease, CHD coronary heart disease, HDL high-density lipoprotein, LDL low-density lipoprotein

Table S2 Genetic variants associated with soluble L-selectin (ng/mL)

SNP ^a	Chr	BP	Ref/Alt	MAF	Gene	Location	Beta	P-value ^b
African American								
rs115231908	2	27792044	A/C	0.030	<i>LOC10042</i>	5'upstream	164.3	4.77E-07
rs114539181	2	27759468	A/G	0.027	<i>GCKR</i>	3'downstream	170.8	5.21E-07
rs12938	1	169660781	T/C	0.319	<i>SELL</i>	3'UTR	-58.96	1.75E-06
rs10518889	15	70550428	G/A	0.257	<i>TLE3</i>	5'upstream	61.7	2.23E-06
rs114747981	2	27739599	A/C	0.026	<i>GCKR</i>	intron	157.7	3.76E-06
rs228966	22	37537514	G/A	0.356	<i>IL2RB</i>	intron	56.82	4.00E-06
rs116715409	2	27955673	A/G	0.031	<i>SLC4A1AP</i>	3'downstream	149.4	4.98E-06
rs3917768	1	169572947	A/C	0.252	<i>SELP</i>	intron	-58.04	5.32E-06
rs116121798	2	27601439	G/A	0.026	<i>ZNF513</i>	coding	157.8	5.35E-06
rs114022285	2	27952587	T/G	0.028	<i>SLC4A1AP</i>	3'downstream	154.5	5.94E-06
Chinese American								
rs12938	1	169660781	T/C	0.069	<i>SELL</i>	3'UTR	-102.5	1.09E-07
rs11632650	15	62475458	T/C	0.008	<i>C2CD4B</i>	5'upstream	230	3.12E-06
rs12916500	15	62476884	T/A	0.008	<i>C2CD4B</i>	5'upstream	230	3.12E-06
rs67049863	15	62472105	T/C	0.008	<i>C2CD4B</i>	5'upstream	230	3.12E-06
rs7179570	15	62477197	A/G	0.008	<i>C2CD4B</i>	5'upstream	230	3.12E-06
rs902790	3	119886776	A/T	0.098	<i>GPR156</i>	coding	76.46	7.62E-06
rs9857123	3	119893063	C/A	0.098	<i>GPR156</i>	intron	76.46	7.62E-06
European American								
rs12938	1	169660781	T/C	0.285	<i>SELL</i>	3'UTR	-118.1	6.88E-20
rs1131498	1	169676486	T/C	0.278	<i>SELL</i>	coding	-105.7	2.14E-16
rs621437	1	169924759	T/C	0.314	<i>KIFAP3</i>	intron	-71.96	1.64E-08
rs3917419	1	169699819	C/T	0.433	<i>SELE</i>	intron	-66.92	4.77E-08
rs5353	1	169702974	T/C	0.262	<i>SELE</i>	intron	71.6	6.84E-08
rs3917392	1	169704335	A/G	0.120	<i>SELE</i>	5'upstream	91.36	2.51E-07
rs4987318	1	169671478	C/A	0.261	<i>SELL</i>	intron	68.34	2.68E-07
rs3917410	1	169701108	T/C	0.122	<i>SELE</i>	intron	90.04	2.82E-07
rs3917452	1	169703617	G/T	0.120	<i>SELE</i>	5'upstream	90.82	2.86E-07
rs3917731	1	169580717	A/G	0.284	<i>SELP</i>	intron	-68.8	2.95E-07
rs5361	1	169701060	A/C	0.118	<i>SELE</i>	coding	90.56	3.40E-07
rs4656697	1	169679179	G/C	0.267	<i>SELL</i>	intron	66.14	6.47E-07
rs4987307	1	169674403	C/A	0.121	<i>SELL</i>	intron	84.55	1.44E-06
rs145194793	17	17250197	G/A	0.005	<i>NT5M</i>	coding	381.2	1.53E-06
rs7195004	16	19871546	C/T	0.012	<i>GPRC5B</i>	3'UTR	258	2.40E-06
rs143440180	16	22328486	C/T	0.013	<i>POLR3E</i>	coding	247.6	6.71E-06
rs12140984	1	169887347	C/T	0.098	<i>KIFAP3</i>	3'downstream	88.29	7.69E-06
Hispanic American								
rs12938	1	169660781	T/C	0.212	<i>SELL</i>	3'UTR	-77.09	1.03E-08
rs621437	1	169924759	T/C	0.193	<i>KIFAP3</i>	intron	-73.47	1.02E-07
rs1131498	1	169676486	T/C	0.176	<i>SELL</i>	coding	-74.56	1.03E-07
rs10445216	17	74018597	T/C	0.011	<i>EVPL</i>	coding	237.6	6.60E-06
rs11544990	17	73987590	G/T	0.011	<i>TEN1</i>	coding	237.6	6.60E-06
rs1541160	1	169995802	A/G	0.170	<i>KIFAP3</i>	intron	-65.59	7.36E-06
rs1007294	21	35838907	G/T	0.180	<i>KCNE1</i>	intron	-65.09	7.61E-06

rs10048853	20	46292910	C/T	0.015	<i>SULF2</i>	coding	209.7	7.75E-06
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^aSNPs occurring in the *SELL/SELP/SELE* region correspond to grayed rows; rs12938 results are bolded

^bFit using linear regression under an additive genetic model, adjusting for age, gender, and leading PCs

MAF: minor allele frequency; SNP: single nucleotide polymorphism; Ref/Alt: reference/alternate alleles

Supplemental Figure 1 Study design

