

Supplementary Material 1

UPRmt-related

genes
CLPP
CLPX
HSPA9
HSPD1
HSPE1
LONP1
YME1L1
SIRT3
SIRT7
PINK1
PRKN
HTRA2
SSBP1
MRPS5
LRPPRC
UCP2
UCP3
NRF1
NRF2
TFAM
ATF4
ATF5
DDIT3
EP300
CREBBP
FGF21
GDF15
FOXO3
HDAC1
HDAC2
HSF1

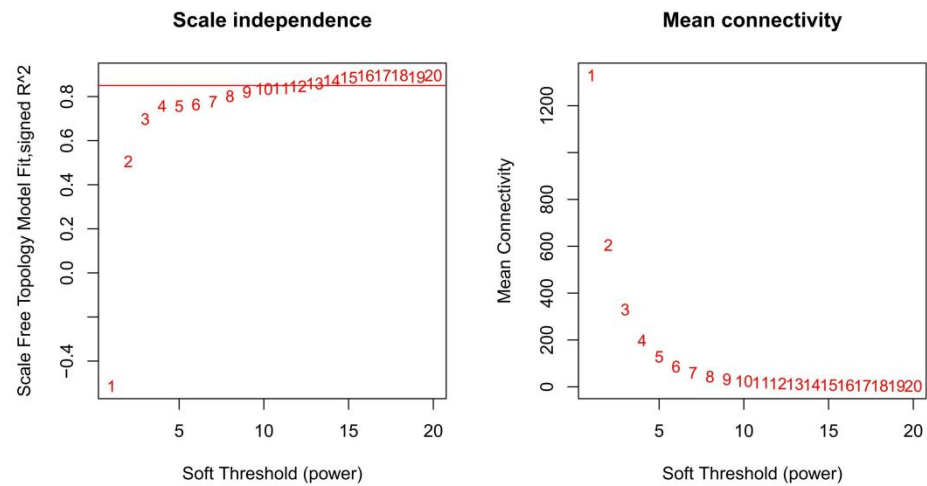
Supplementary Material 1: UPRmt-related genes.

Supplementary Material 2

Primer Name	Upstream	Downstream
β -actin	ctacctcatgaagatcctgacc	cacagcttctctttgatgtcac
APOC1	gagagcataccggataaactga	ttctccttcactttgccaaatg
ARHGAP25	tcagaggctaaggcaggagaagg	tcgtaggtagaagtccgctggtc
CYTH4	ttgccaacctcaacctcgttcag	gcagtagcgagcagcgaagg
ITGB7	ctctctgtggaaatctacgacc	tcgcactttttagagaggatt
MARCO	tggagaccttcgaaatcaatga	ctctaggtaccaggtgtgtttt
PLCB2	ctacctcctaaagcacgagttc	cccagagatgatcgtaatggaa
WDFY4	gagagcgatgttcaagggcagag	aggtgggtggcgatcagtagagac

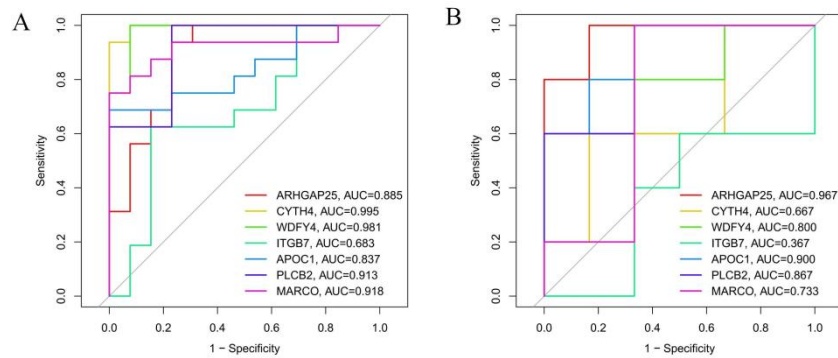
Supplementary Material 2: The primers and nucleotide sequences used in this detection.

Supplementary Material 3



Supplementary Material 3: The determination of soft thresholding power.

Supplementary Material 4



Supplementary Material 4: (A)The ROC curves of hub genes in GSE28829. (B)The ROC curves of hub genes in GSE41571.

Supplementary Material 5

id.exposure	id.outcome	outcome	exposure	egger_intercept	se	pval
BpTZfh	99FKwj	Atherosclerosis	ARHGA P25	-0.022709 39	0.02223558512 61425	0.493289077 60652

Supplementary Material 5: MR-SNP

Supplementary Material 6

	id.outc	outcome	exposure	method	nntp	b	se	pval	lo_ci	up_ci	or	or_lci95	or_uci95
BpT	99FKw	Atheroscle	ARHGA	MR Egger	3	0.2422318544	0.108448556895811	0.2679814	0.0296726	0.4547910	1.2740895	1.0301173	1.5758440
Zfh	j	rosis	P25			00842		39639127	82885051	25916632	6184555	04	3805952
BpT	99FKw	Atheroscle	ARHGA	Weighted	3	0.1401286708	0.0395280181793476	0.0003925	0.0626537	0.2176035	1.1504218	1.0646581	1.2430941
Zfh	j	rosis	P25	median		85712		435133439					
								04					
								0.0001891					
BpT	99FKw	Atheroscle	ARHGA	Inverse variance	3	0.1381175694	0.0369987197942284	852070817	0.0656000	0.2106350	1.1481105	1.0677995	1.2344617
Zfh	j	rosis	P25	weighted		57426							
								45					

BpT	99FKw	Atheroscle	ARHGA	Simple mode	3	0.0805565982	0.0613651084739427	0.3196757	-0.039719	0.2008322	1.0838901	0.9610594	1.2224196
Zfh	j	rosis	P25			880653	0205002	014	10896993	9123551	45157526	4591898	
BpT	99FKw	Atheroscle	ARHGA	Weighted mode	3	0.1557741369	0.0425588307160682	0.0672055	0.0723588	0.2391894	1.1685622	1.0750410	1.2702191
Zfh	j	rosis	P25			70997	165455158	287675033	45174491	3827433	3050997	5068017	

Supplementary Material 6: MR-result.

Supplementary Material 7

id.exp	id.out	outcome	exposu	method	Q	Q_df	Q_pval
osure	come		re				
BpTZf	99FK	Atherosc	ARHG	MR Egger	0.05249229	1	0.81878188
h	wj	lerosis	AP25		84563147		3973345
BpTZf	99FK	Atherosc	ARHG	Inverse variance weighted	1.09556313	2	0.57823115
h	wj	lerosis	AP25		834487		4386809

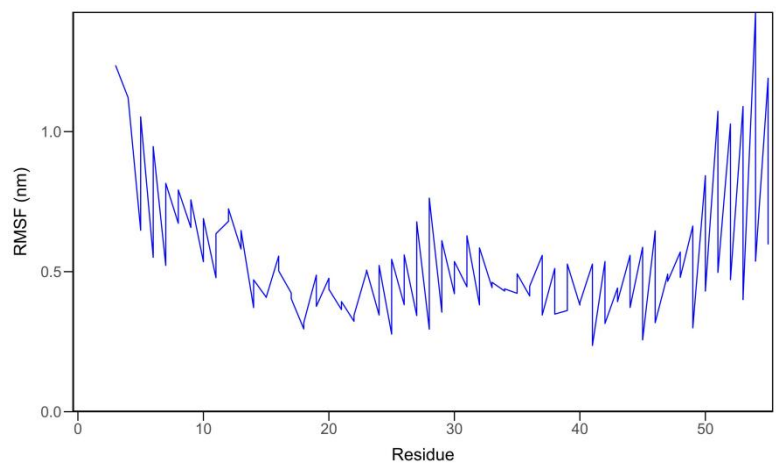
Supplementary Material 7: heterogeneity

Supplementary Material 8

id.expos	id.outco	outcome	exposure	egger_inte	se	pval
ure	me			recept		
BpTZfh	99FKw	Atheroscle	ARHGA	-0.022709	0.02223558512	0.493289077
	j	rosis	P25	39	61425	60652

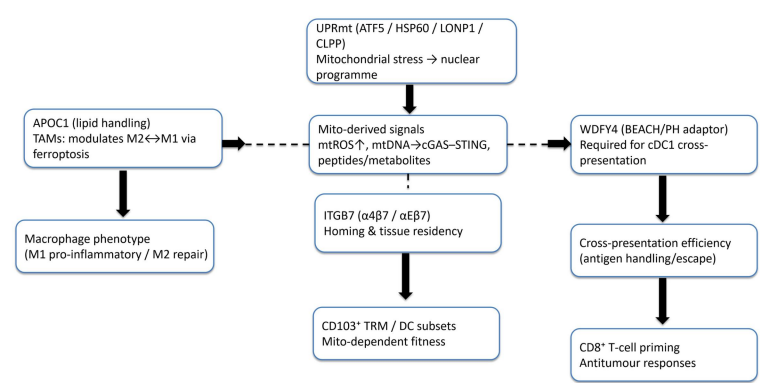
Supplementary Material 8: pleiotropy

Supplementary Material 9



Supplementary Material 9: Presents the RMSF (Root Mean Square Fluctuation) analysis of APOC1 protein residues throughout a molecular dynamics simulation

Supplementary Material 10



Supplementary Material 10: Schematic of UPRmt – immune cell crosstalk.

