

Supplementary Table S1: Characteristics of significant SNPs with genome-wide associations (P<5×10 ⁻⁵) for MMP-1 on IS																																						
SNP	effect_al	other_all	effect_al	other_all	beta	expo	beta	outc	eaf	expos	eaf	outco	remove	palindrom	ambiguous	id	outcom	pos	outco	pval	outc	se	outcom	outcome	mr_keep	o	pval	orig	id	exposu	data_sour	action	SNP_index	mr_keep	samplesiz	R2	f	meanf
rs1073282 A	G	A	G		0.0558	0.014947	0.3498	0.372556	FALSE	FALSE	FALSE	1aSZIN	84132151	0.085743	0.008699	outcome	TRUE	reported	textfile	0.0124	6.80E-06	14742	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001372	20.24725	65.17072				
rs1097864 A	T	A	T		0.0649	0.008265	0.7462	0.791325	FALSE	TRUE	FALSE	1aSZIN	1.07E+08	0.427188	0.01041	outcome	TRUE	reported	textfile	0.014	3.56E-06	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001501	21.48684	65.17072				
rs1099053 T	C	T	C		0.0703	-0.011	0.253	0.26549	FALSE	FALSE	FALSE	1aSZIN	96328727	0.250628	0.009576	outcome	TRUE	reported	textfile	0.0135	1.91E-07	14734	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001837	27.11341	65.17072				
rs1163502 A	T	A	T		0.0639	0.010896	0.3845	0.4122	FALSE	TRUE	FALSE	1aSZIN	1.24E+08	0.203859	0.008575	outcome	TRUE	reported	textfile	0.0142	6.80E-06	10717	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001886	20.24622	65.17072				
rs1167312 T	C	T	C		-0.0585	0.016276	0.296	0.247362	FALSE	FALSE	FALSE	1aSZIN	14652936	0.094632	0.009738	outcome	TRUE	reported	textfile	0.0127	4.10E-06	14741	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001437	21.21511	65.17072				
rs1168898 A	G	A	G		-0.176	-0.0222	0.0455	0.024986	FALSE	FALSE	FALSE	1aSZIN	1.03E+08	0.412973	0.02712	outcome	TRUE	reported	textfile	0.03	4.45E-09	14744	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.002329	34.41311	65.17072				
rs1214179 A	G	A	G		0.0859	-0.01064	0.6981	0.63455	FALSE	FALSE	FALSE	1aSZIN	1.56E+08	0.223758	0.008745	outcome	TRUE	reported	textfile	0.013	3.90E-11	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.003045	43.65549	65.17072				
rs1236736 T	G	T	G		0.0861	-0.00411	0.1146	0.14967	FALSE	FALSE	FALSE	1aSZIN	83200264	0.728286	0.01182	outcome	TRUE	reported	textfile	0.0186	3.67E-06	14744	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001451	21.42503	65.17072				
rs1238045 T	C	T	C		-0.0593	-0.00742	0.7098	0.715395	FALSE	FALSE	FALSE	1aSZIN	9191014	0.426576	0.009337	outcome	TRUE	reported	textfile	0.0133	8.25E-06	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001389	19.87675	65.17072				
rs1417822 A	G	A	G		0.3767	0.035289	0.9777	0.967804	FALSE	FALSE	FALSE	1aSZIN	1.02E+08	0.14199	0.024032	outcome	TRUE	reported	textfile	0.0445	2.56E-17	14731	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.004841	71.64935	65.17072				
rs1489088 A	G	A	G		-0.2306	-0.15673	0.0214	0.003783	FALSE	FALSE	FALSE	1aSZIN	24654031	0.026537	0.070655	outcome	TRUE	reported	textfile	0.0517	8.18E-06	12935	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001536	19.89163	65.17072				
rs1498192 A	G	A	G		-0.1601	-0.05425	0.0417	0.035984	FALSE	FALSE	FALSE	1aSZIN	21009900	0.016099	0.022543	outcome	TRUE	reported	textfile	0.0351	5.08E-06	14744	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001409	20.80221	65.17072				
rs1886263 T	C	T	C		-0.2509	-0.06167	0.0177	0.00122	FALSE	FALSE	FALSE	1aSZIN	1.21E+08	0.621621	0.124944	outcome	TRUE	reported	textfile	0.053	2.20E-06	12935	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.00173	22.40693	65.17072				
rs1891733 T	C	T	C		0.3179	0.039487	0.0131	0.017033	FALSE	FALSE	FALSE	1aSZIN	8720275	0.243865	0.033883	outcome	TRUE	reported	textfile	0.0714	8.49E-06	11925	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.00166	19.82037	65.17072				
rs2155053 T	C	T	C		-0.3212	-0.02841	0.9461	0.950291	FALSE	FALSE	FALSE	1aSZIN	1.03E+08	0.143053	0.019399	outcome	TRUE	reported	textfile	0.0264	4.68E-34	14741	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.009942	148.0077	65.17072				
rs2229629 A	G	A	G		-0.3153	-0.04022	0.0135	0.010701	FALSE	FALSE	FALSE	1aSZIN	74889400	0.32809	0.041129	outcome	TRUE	reported	textfile	0.0673	2.80E-06	10887	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.002012	21.94512	65.17072				
rs2926741 T	C	T	C		-0.0704	-0.01251	0.3436	0.31032	FALSE	FALSE	FALSE	1aSZIN	56704813	0.169912	0.009111	outcome	TRUE	reported	textfile	0.0126	2.31E-08	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.002179	31.21357	65.17072				
rs4734879 A	G	A	G		0.1136	0.020204	0.7422	0.778074	FALSE	FALSE	FALSE	1aSZIN	1.06E+08	0.047596	0.010199	outcome	TRUE	reported	textfile	0.0137	1.11E-16	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.004786	68.74716	65.17072				
rs484915 A	T	A	T		-0.3517	0.012973	0.5613	0.635854	FALSE	TRUE	TRUE	1aSZIN	1.03E+08	0.13938	0.008777	outcome	TRUE	reported	textfile	0.0119	#####	14295	exposure	TRUE	reported	VheQ7B	textfile	2	1	FALSE	NA	0.057585	873.3535	65.17072				
rs5881124 T	C	T	C		-0.1051	0.006131	0.9266	0.919262	FALSE	FALSE	FALSE	1aSZIN	62157046	0.691154	0.015431	outcome	TRUE	reported	textfile	0.0234	7.07E-06	14723	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001368	20.17041	65.17072				
rs6717478 A	T	A	T		0.1548	0.014704	0.966	0.961818	FALSE	TRUE	FALSE	1aSZIN	63429919	0.502195	0.021912	outcome	TRUE	reported	textfile	0.0338	4.65E-06	14742	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001421	20.97247	65.17072				
rs7219205 A	G	A	G		0.0569	0.016183	0.5023	0.579277	FALSE	FALSE	FALSE	1aSZIN	4448017	0.058196	0.008543	outcome	TRUE	reported	textfile	0.0121	2.57E-06	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001544	22.11022	65.17072				
rs7277739 A	G	A	G		0.1657	0.009237	0.9671	0.965268	FALSE	FALSE	FALSE	1aSZIN	10782980	0.687523	0.022965	outcome	TRUE	reported	textfile	0.0364	5.31E-06	14744	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001404	20.71969	65.17072				
rs7709531 T	G	T	G		-0.1416	0.001857	0.0705	0.049771	FALSE	FALSE	FALSE	1aSZIN	1.03E+08	0.923712	0.019388	outcome	TRUE	reported	textfile	0.0238	2.69E-09	14744	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.002395	35.3927	65.17072				
rs873675 T	C	T	C		0.1234	-0.00096	0.0684	0.091462	FALSE	FALSE	FALSE	1aSZIN	65005770	0.947716	0.01463	outcome	TRUE	reported	textfile	0.0234	1.34E-07	14742	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.001883	27.80607	65.17072				
rs9524612 T	C	T	C		-0.072	0.001166	0.177	0.209831	FALSE	FALSE	FALSE	1aSZIN	94777638	0.910662	0.010392	outcome	TRUE	reported	textfile	0.0162	8.81E-06	14296	exposure	TRUE	reported	VheQ7B	textfile	2	1	TRUE	NA	0.00138	19.75032	65.17072				