

**Table e-6:** Cross Phenotype Spatial Mapping (CPSM) results for All reported loci with peak height > 1.5 for ischemic stroke and migraine subtype where the calculation was performed. Chromosomal band, chromosomal location, peak SNP and peak height are displayed. Direction of effect is given for the peak SNP. Genes in the region denote All genes found within the specified region. Results with a peak height > 2.5 are given in Table 2.

<b>Migraine Phenotype</b>	<b>Stroke Phenotype</b>	<b>Chr band</b>	<b>Position (Mb)</b>	<b>Locus size</b>	<b>Peak SNP</b>	<b>Same directional effect</b>	<b>Peak height</b>	<b>Genes within locus</b>
All migraine	All IS	1p32.3	53.8-53.9	96.5kB	rs12045240	N	1.97	<i>GLIS1</i>
All migraine	All IS	1q21.2	146.3-148.1	1.80MB	rs7531664	N	2.37	<i>NBPF1, NBPF12, PPIAL4A, NBPF20, NBPF15, NBPF16</i>
All migraine	All IS	5q33.1	151.0-151.1	57.5kB	rs2915827	N	1.75	<i>ATOX1, G3BP1</i>
All migraine	All IS	7q21.11	77.9-78.0	56.3kB	rs6466258	Y	1.50	<i>MAGI2</i>
All migraine	All IS	8q12.1	60.3-60.5	78.0kB	rs4386970	Y	1.61	-
All migraine	All IS	8q24.3	143.3-144.4	97.3kB	rs7465202	Y	1.78	<i>TSNARE1</i>
All migraine	All IS	10q26.13	123.3-123.4	111.7kB	rs2981579	N	2.07	<i>FGFR2</i>
All migraine	All IS	11p15.4	10.6-10.7	86.2kB	rs7940646	Y	2.03	<i>MRVII</i>
All migraine	All IS	11q13.5	76.6-76.7	112.1kB	rs1793488	Y	1.72	<i>GDPD4, PAK1</i>
All migraine	All IS	12q13.11	48.3-48.4	168.6kB	rs4641552	Y	1.73	<i>FAM186B, PRPF40B, FMNL3, TMBIM6</i>
All migraine	All IS	13q22.3	78.1-78.3	101.8kB	rs9574277	Y	2.09	-
All migraine	All IS	13q32.2	98.9-99.2	190.7kB	rs1570738	N	1.91	<i>TM9SF2, CLYBL</i>
All migraine	All IS	16p11.2	29.8-29.9	88.7kB	rs4609871	Y	1.72	<i>IMAA, SEZ6L2, ASPHD1, KCTD13, TMEM219</i>
All migraine	All IS	16p11.2	30.0-30.3	219.5kB	rs7202714	Y	1.62	<i>IMAA, GIYD2, CORO1A, SULT1A3, BOLA2B</i>

All migraine	All IS	17p13.1	7.3-7.4	77.5kB	rs9890920	N	1.70	<i>ZBTB4, POLR2A</i>
All migraine	LAS	3p21.31	48.4-48.5	79.9kB	rs6442120	Y	1.59	<i>FBXW12, PLXNB1, CCDC51, ATRIP, TREX1</i>
All migraine	LAS	3q27.3	189.0-189.1	66.0kB	rs577790	N	1.79	-
All migraine	LAS	5p14.1	29.0-29.1	81.1kB	rs1692347	Y	1.64	-
All migraine	LAS	5q12.3	65.4-65.6	106.8kB	rs36838	Y	1.67	<i>SFRS12</i>
All migraine	LAS	5q14.1	77.3-77.4	91.8kB	rs252795	N	1.93	<i>AP3B1</i>
All migraine	LAS	5q15	92.9-93.0	86.0kB	rs1046217	N	1.60	<i>NR2F1, FAM172A</i>
All migraine	LAS	5q15	93.4-93.5	114.8kB	rs9314099	N	1.56	<i>FAM172A</i>
All migraine	LAS	8q21.13	84.2-84.3	62.9kB	rs4481591	Y	1.69	-
All migraine	LAS	10q22.3	78.92-79.03	118.3kB	rs816855	Y	1.66	<i>KCNMA1</i>
All migraine	LAS	12q13.3	55.8-55.9	86.1kB	rs1385526	Y	2.24	<i>STAT6, LRP1</i>
All migraine	LAS	12q24.12	110.5-110.9	381.5kB	rs7962138	N	2.20	<i>ATXN2, BRAP, ACAD10, ALDH2, MAPKAPK5, TMEM116</i>
All migraine	LAS	14q13.2	35.1-35.2	134.6kB	rs10133920	N	1.51	<i>GARNLI</i>
All migraine	LAS	14q13.2	35.2-35.4	140.5kB	rs4982310	Y	1.86	<i>GARNLI, BRMS1L</i>
All migraine	LAS	15q11.2	21.3-21.4	72.6kB	rs6576538	Y	1.87	<i>MKRN3</i>
All migraine	LAS	15q24.1	71.5-71.6	83.9kB	rs8039395	N	1.73	<i>C15orf60</i>
All migraine	LAS	16q23.1	73.8-74.0	207.6kB	rs7203157	Y	2.21	<i>CFDP1, TMEM170A</i>

All migraine	LAS	19p13.11	19.3-19.5	233.9kB	rs11669730	N	1.84	<i>GATAD2A, TSSK6, YJEFN3, CIPL2, PBX4</i>
All migraine	CE	1q21.2	148.5-148.8	293.1kB	rs3754214	N	2.19	<i>C1orf51, C1orf54, MRPS21, PPR3, RPRD2, TARS2, ECM1, ADAMTSL4</i>
All migraine	CE	2p12	83.3-83.4	64.9kB	rs6547485	Y	1.63	-
All migraine	CE	2q13	112.5-112.6	77.4kB	rs9653422	Y	1.92	<i>TMEM87B, FBLN7</i>
All migraine	CE	2q13	112.7-112.9	213.3kB	rs6751146	Y	1.53	<i>ZC3H8, ZC3H6, RGPD5</i>
All migraine	CE	4q25	111.7-111.8	55.6kB	rs2197815	Y	1.93	<i>PITX2</i>
All migraine	CE	5q35.1	170.2-170.5	271.3kB	rs930890	Y	1.93	<i>RANBP17</i>
All migraine	CE	6q14.1	76.1-76.3	183.1kB	rs2998393	Y	1.89	<i>FILIP1</i>
All migraine	CE	6q25.2	154.8-154.9	68.8kB	rs6557352	N	1.80	<i>CNKSR3</i>
All migraine	CE	8q13.1	67.7-67.8	73.6kB	rs6983214	Y	1.64	<i>VCPIP1, SGK3</i>
All migraine	CE	9q21.32	85.7-85.8	110.6kB	rs7853377	N	1.65	<i>KIF27, C9orf64, HNRPK, RMI1</i>
All migraine	CE	10q21.1	57.3-57.5	87.4kB	rs10733942	Y	1.82	-
All migraine	CE	10q22.1	74.0-74.3	280.5kB	rs12779026	Y	1.83	<i>CBARA1, CCDC109A</i>
All migraine	CE	11p11.2	46.4-46.6	222.9kB	rs2171667	N	1.66	<i>DGKZ, MDK, AMBRA1</i>
All migraine	CE	13q14.3	49.4-49.5	135.1kB	rs2407882	N	1.86	<i>C13orf1, DLEU2, TRIM13, KCNRG</i>
All migraine	CE	17q25.3	75.0-75.3	308.1kB	rs12603858	Y	1.72	<i>HRNBP3</i>
All migraine	CE	21q21.2	23.0-23.1	81.5kB	rs2827688	N	2.15	-

<b>All migraine</b>								
<b>All migraine</b>	SVD	1p36.32	3.0-3.1	58.7kB	rs2651899	N	1.51	<i>PRDM16</i>
<b>All migraine</b>	SVD	1p21.3	98.1-98.2	88.4kB	rs1801265	Y	1.91	<i>DPYD</i>
<b>All migraine</b>	SVD	2q31.1	174.6-174.8	203.5kB	rs12463405	Y	2.39	<i>OLA1</i>
<b>All migraine</b>	SVD	2q32.1	186.4-186.5	139.1kB	rs12478116	Y	1.61	-
<b>All migraine</b>	SVD	2q33.1	203.4-203.5	97.6kB	rs7582720	Y	2.07	<i>ICAIL, WDR12, ALS2CR8</i>
<b>All migraine</b>	SVD	3p21.31	44.9-45.0	91.6kB	rs4683012	Y	1.88	<i>TGM4, ZDHHC3, EXOSC7</i>
<b>All migraine</b>	SVD	4p15.1	35.2-35.3	99.7kB	rs7678149	Y	1.86	-
<b>All migraine</b>	SVD	5q31.1	132.4-132.5	69.6kB	rs4321746	Y	2.18	<i>HSPA4</i>
<b>All migraine</b>	SVD	5q32	145.8-145.9	68.0kB	rs7719203	Y	1.82	<i>TCERG1</i>
<b>All migraine</b>	SVD	5q35.1	170.2-170.5	277.6kB	rs811407	Y	2.06	<i>RANBP17</i>
<b>All migraine</b>	SVD	6p24.1	13.0-13.1	68.0kB	rs7454157	Y	1.66	<i>PHACTR1</i>
<b>All migraine</b>	SVD	6q16.1	97.0-97.2	194.5kB	rs11153058	N	1.73	<i>FHL5, KIAA0776</i>
<b>All migraine</b>	SVD	8q24.21	130.9-131.0	88.6kB	rs2046260	Y	2.23	<i>FAM49B</i>
<b>All migraine</b>	SVD	9p13.2	36.9-37.0	55.5kB	rs10814501	Y	1.64	<i>PAX5</i>
<b>All migraine</b>	SVD	9q33.1	118.3-118.4	102.0kB	rs4836756	N	2.44	<i>ASTN2</i>
<b>All migraine</b>	SVD	12q14.1	57.3-57.4	66.5kB	rs12300285	N	1.71	-
<b>All migraine</b>	SVD	13q14.11	43.3-43.4	74.9kB	rs2275252	N	1.56	<i>CCDC122, C13orf31</i>

<b>All migraine</b>	SVD	14q24.1	67.4-67.7	274.2kB	rs11158716	N	2.19	<i>RAD51L1</i>
<b>All migraine</b>	SVD	16p13.11	15.4-15.5	80.0kB	rs1684546	N	1.78	<i>C16orf45</i>
<b>All migraine</b>	SVD	17q21.13	38.9-39.0	96.6kB	rs2271958	Y	1.57	<i>DHX8, ETV4</i>
<b>All migraine</b>	SVD	21q21.2	22.9-23.0	76.3kB	rs7280779	Y	1.64	-
<b>MO</b>	All IS	1p32.3	53.8-53.9	82.2kB	rs1474462	N	1.53	<i>GLIS1</i>
<b>MO</b>	All IS	4q31.2	144.2-144.5	321.0kB	rs7680365	Y	2.15	<i>USP38, GAB1</i>
<b>MO</b>	All IS	5p15.1	17.6-17.8	192.7kB	rs6450583	Y	1.91	-
<b>MO</b>	All IS	5q31.2	138.3-138.5	112.7kB	rs10054478	Y	1.87	<i>SIL1</i>
<b>MO</b>	All IS	9p21.3	22.0-22.1	119.9kB	rs1537370	Y	1.85	<i>MTAP, CDKN2BAS</i>
<b>MO</b>	All IS	9q32	114.0-114.1	113.7kB	rs4369055	N	1.68	<i>ROD1</i>
<b>MO</b>	All IS	10q22.1	72.6-72.7	66.9kB	rs10999736	N	1.58	<i>UNC5B</i>
<b>MO</b>	All IS	10q23.33	94.6-94.7	95.1kB	rs10882121	Y	1.56	<i>EXOC6</i>
<b>MO</b>	All IS	13q14.3	49.6-49.7	69.1kB	rs2066612	Y	1.55	<i>XTP6</i>
<b>MO</b>	All IS	21q21.1	15.4-15.5	92.3kB	rs2896689	Y	2.12	-
<b>MO</b>	LAS	4q24	105.4-105.6	109.0kB	rs6853209	Y	2.14	-
<b>MO</b>	LAS	5p14.1	29.0-29.1	92.7kB	rs1692345	Y	1.73	-
<b>MO</b>	LAS	6p24.1	13.0-13.2	200.6kB	rs7739181	Y	1.68	<i>PHACTR1</i>
<b>MO</b>	LAS	7q31.32	123.1-123.2	120.4kB	rs7776792	N	1.60	<i>ASB15, LMOD2, WASL</i>
<b>MO</b>	LAS	8p12	35.2-35.3	117.0kB	rs2980401	N	2.39	<i>UNC5D</i>
<b>MO</b>	LAS	12q24.11	109.9-110.0	98.8kB	rs4378452	N	2.09	<i>CUX2</i>
<b>MO</b>	LAS	19p13.3	2.1-2.2	110.6kB	rs7248941	N	2.17	<i>AP3D1, DOT1L,</i>
<b>MO</b>	LAS	19p13.11	19.3-19.6	277.1kB	rs11669730	Y	1.77	<i>GATAD2A, TSSK6, YJEFN3, CIPL2, PBX4</i>
<b>MO</b>	CE	1q21.2	148.7-148.8	107.3kB	rs3754214	N	1.62	<i>RPRD2, TARS2, ECM1</i>
<b>MO</b>	CE	1q31.1	187.2-187.3	102.7kB	rs1373936	Y	1.80	-
<b>MO</b>	CE	2p15	61.5-61.7	144.1kB	rs7421663	N	1.65	<i>USP34, XPO1</i>
<b>MO</b>	CE	2q22.3	146.8-147.0	154.8kB	rs12691739	Y	1.84	-
<b>MO</b>	CE	3p12.3	80.4-80.6	193.8kB	rs10154970	Y	1.79	-
<b>MO</b>	CE	5p14.3	19.6-19.8	140.0kB	rs13177990	N	2.23	<i>CDH18</i>
<b>MO</b>	CE	5q31.2	138.3-138.5	173.8kB	rs10054478	Y	2.04	<i>SIL1</i>

MO	CE	10q22.1	74.0-74.3	275.2kB	rs6480640	Y	1.87	<i>CBARA1, CCDC109A</i>
MO	CE	10q24.2	100.7-100.8	116.3kB	rs10466169	Y	1.77	<i>HPSE2</i>
MO	CE	17p11	22.2-22.3	190.5kB	rs7213203	N	2.30	-
MO	CE	17p11.2	22.4-22.5	152.7kB	rs2061900	Y	1.77	-
MO	SVD	2p25.1	8.9-9.1	147.0kB	rs7608273	Y	2.04	<i>MBOAT2</i>
MO	SVD	3p21.31	44.9-45.0	87.7kB	rs9877753	Y	1.86	<i>TGM4, ZDHHC3, EXOSC7</i>
MO	SVD	3p14.3	57.2-57.3	101.0kB	rs4640525	N	1.86	<i>HESX1, APPL1, ASB14</i>
MO	SVD	5p15.32	5.3-5.4	59.1kB	rs7723605	N	1.69	-
MO	SVD	6p24.1	12.9-13.1	85.9kB	rs2327620	Y	2.46	<i>PHACTR1</i>
MO	SVD	6q16.1	97.0-97.2	215.2kB	rs11153058	N	2.30	<i>KIAA0776, FHL5</i>
MO	SVD	8p12	33.1-33.3	105.0kB	rs6468145	N	1.56	-
MO	SVD	9q33.1	118.3-118.4	77.9kB	rs10116835	N	1.65	<i>ASTN2</i>
MO	SVD	12q14.1	57.3-57.4	69.8kB	rs12300285	Y	2.03	-
MO	SVD	22q11.22	21.1-21.2	76.3kB	rs5758522	N	1.63	<i>ZNF280B, ZNF280A, PRAME</i>
MA	All IS	4q26	119.0-119.1	112.7kB	rs6834344	Y	1.82	-
MA	All IS	5q23.3	127.9-128.0	82.1kB	rs4362987	Y	1.67	-
MA	All IS	6p23	14.5-14.6	71.6kB	rs9476573	N	2.13	-
MA	All IS	9q32	114.0-114.1	102.7kB	rs943620	Y	1.62	<i>ROD1</i>
MA	All IS	10q26.13	123.3-123.4	97.2kB	rs1219648	N	1.68	<i>FGFR2</i>
MA	All IS	11q13.5	76.6-76.9	253.5kB	rs2725810	Y	2.08	<i>GDPD4, PAK1</i>
MA	All IS	11q23.1	111.7-111.8	81.7kB	rs10789877	N	1.67	-
MA	All IS	15q22.2	57.7-57.8	113.5kB	rs7182962	Y	1.68	<i>GCNT3, GTF2A2, BNIP2</i>
MA	All IS	19p13.2	11.0-11.1	66.4kB	rs8099996	N	1.99	<i>SMARCA4, LDLR</i>
MA	LAS	2q21.3	135.3-135.4	123.4kB	rs1446525	Y	1.90	<i>ACMSD, CCNT2</i>
MA	LAS	4q28.1	128.3-128.5	188.5kB	rs1596282	Y	1.65	-
MA	LAS	5p13.3	34.0-34.1	86.0kB	rs253202	N	1.55	<i>SLC45A2, AMACR, C1QTNF3</i>
MA	LAS	7q31.1	113.7-113.8	109.7kB	rs1728438	N	2.41	<i>FOXP2</i>
MA	LAS	8q24.12	120.5-120.6	71.5kB	rs7000665	N	1.54	-
MA	LAS	10q22.2	75.4-75.5	91.9kB	rs11594818	Y	2.06	<i>VCL</i>
MA	LAS	10q25.3	117.9-118.1	155.1kB	rs2577383	Y	1.60	<i>GFRA1, C10orf95</i>
MA	LAS	11q22.3	103.7-103.8	116.0kB	rs4755023	N	1.63	-
MA	LAS	15q24.1	70.4-70.5	106.4kB	rs4556749	Y	1.86	<i>BRUNOL6, HEXA, TMEM202</i>
MA	LAS	17q23.2	57.2-57.3	88.1kB	rs1015771	Y	1.66	<i>BRIP1</i>

MA	CE	4p16.3	0.24-0.34	104.2kB	rs6828802	N	2.36	<i>ZNF141</i>
MA	CE	4q26	119.0-119.1	89.0kB	rs11098412	Y	1.65	-
MA	CE	6p22.1	29.7-29.8	67.7kB	rs3025632	N	2.05	<i>GABBR1</i>
MA	CE	10q21.1	57.4-57.5	68.7kB	rs11005196	N	1.58	-
MA	CE	11p11.2	56.4-56.6	241.0kB	rs2864076	N	1.74	<i>MDK, CHRM4, AMBRA1, HARB11</i>
MA	CE	14q13.2	35.3-35.4	114.8kB	rs4981309	N	2.12	<i>GARNL1, BRMS1L</i>
MA	CE	15q15.1	40.5-40.7	137.2kB	rs8033412	Y	1.94	<i>SNAP23, LRRC57, CEP27</i>
MA	CE	15q25.3	86.5-86.6	84.7kB	rs11635443	N	2.17	<i>NTRK3</i>
MA	CE	17p13.1	7.3-7.4	96.6kB	rs4796430	N	2.39	<i>CHRNB1, ZBTB4, AMA1L3, POLR2A</i>
MA	CE	17q23.2	58.2-58.3	86.7kB	rs1476811	N	2.01	<i>MARCH10</i>
MA	CE	20q13.2	50.5-50.6	83.0kB	rs6021974	Y	2.10	-
MA	SVD	2q31.1	174.7-174.8	105.8kB	rs12463405	Y	1.77	<i>OLA1</i>
MA	SVD	3p21.3	49.6-49.7	92.7kB	rs2131109	N	2.04	<i>BSN, APEH, MST1, RNF123</i>
MA	SVD	3q11.2	99.0-99.2	183.4kB	rs831882	N	1.61	<i>ARL6, CRYBG3, MINA</i>
MA	SVD	9q21.31	81.9-82.0	84.5kB	rs10780355	Y	2.21	-
MA	SVD	11q23.1	111.7-111.8	90.1kB	rs10502156	Y	1.91	-

Abbreviations: SNP = single nucleotide polymorphism; Chr = chromosome; MO = migraine without aura; MA = migraine with aura; IS = ischemic stroke; LAS = large artery stroke; CE = cardioembolic; SVD = small vessel disease.