

Table S11: Top association signals from the vascular brain injury (VBI) ordinal phenotype

| Marker | Chr | Position | EA | RA | Freq | minFreq | maxFreq | Effect | StdErr | Pval | Direction | Gene |
|--------------|-----|-------------|----|----|--------|---------|---------|---------|--------|----------|-----------|----------|
| rs7048146 | 9 | 112,299,322 | T | C | 0.3891 | 0.3602 | 0.4596 | -0.2933 | 0.0588 | 6.10E-07 | ----- | none |
| rs11144781 | 9 | 78,793,421 | T | G | 0.0318 | 0.0228 | 0.0434 | 0.7998 | 0.167 | 1.67E-06 | +++++ | PCSK5 |
| 3-66952276 | 3 | 66,952,276 | C | T | 0.9841 | 0.9839 | 0.9873 | -1.2736 | 0.266 | 1.69E-06 | +?-?? | none |
| 10-106180121 | 10 | 106,180,121 | G | T | 0.9893 | 0.9856 | 0.9895 | -2.0531 | 0.4378 | 2.74E-06 | --+?? | CCDC147 |
| rs34660913 | 11 | 13,158,010 | T | C | 0.0922 | 0.0666 | 0.1065 | -0.6007 | 0.1319 | 5.24E-06 | --+?- | none |
| 7-134674232 | 7 | 134,674,232 | A | G | 0.0219 | 0.0201 | 0.0785 | 1.0385 | 0.2295 | 6.02E-06 | ?+??+? | AGBL3 |
| rs2018293 | 22 | 26,704,561 | T | C | 0.185 | 0.1538 | 0.2401 | 0.3091 | 0.0692 | 8.01E-06 | ++++- | SEZ6L |
| rs11769293 | 7 | 28,911,807 | T | C | 0.0289 | 0.0233 | 0.0398 | 0.9011 | 0.202 | 8.18E-06 | ++++? | none |
| 8-80222312 | 8 | 80,222,312 | T | C | 0.1612 | 0.1163 | 0.1887 | -0.3494 | 0.0787 | 9.00E-06 | ----- | none |
| rs13331544 | 16 | 25,779,378 | G | A | 0.5781 | 0.4655 | 0.6283 | 0.2622 | 0.0592 | 9.60E-06 | +++++ | none |
| 3-108271501 | 3 | 108,271,501 | T | C | 0.0129 | 0.0127 | 0.0265 | 1.2639 | 0.2858 | 9.78E-06 | ++??+? | KIAA1524 |

Chr: chromosome number; EA: effect allele; RA: reference allele; Freq: frequency of effect allele; min/maxFreq: the minimum and maximum within cohort allele frequency; Effect: allele effect, in terms of the beta coefficient