**Appendix 2. Association of candidate genetic variants with tomographic outcome variables**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Gene** | **Variant** | **Major allele** | **Minor allele** | | **Time point** | | **N (major homo/hetero/minor homo)** | | **Genetic model** | **Dry status on OCT** | | | |  | **CSMT change**  **from baseline** | |
| **N (%)\*** | | **OR (95% CI) \*\*** | **Uncor-rected**  ***P* -value†** | **Mean (µm)\*** | **Uncor-rected**  ***P* -value††** |
| ***CFH*** | rs800292 | G | A | | 12 mo | | 201 / 156 / 37 | | Additive | 57(28.4) / 47(30.1) / 15(40.5) | | 1.88 (0.89-3.99) | 0.0591 |  | -68.8 / -65.4 / -88.0 | 0.3591 |
|  |  |  |  | |  | |  | | Recessive |  | | 2.03 (0.87-4.75) | 0.0672 |  |  | 0.2381 |
|  |  |  |  | | 24 mo | | 187 / 145 / 34 | | Additive | 53 (28.3) /44(30.3) / 11(32.4) | | 1.18 (0.84-1.66) | 0.3277 |  | -75.1 / -62.3 / -74.2 | 0.2949 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.06 (0.50-2.26) | 0.8789 |  |  | 0.5632 |
| ***CFH*** | rs1061170§ | T | C | | 12 mo | | 318 / 69 / 3 | | Additive | 95(29.6) / 23(33.3) / 0(0.0) | | 1.12 (0.67-1.89) | 0.6661 |  | -71.0 / -66.7 / +31.0 | 0.8136 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.24 (0.71-2.16) | 0.4551 |  |  | 0.8514 |
|  |  |  |  | | 24 mo | | 294 / 65 / 3 | | Additive | 86(29.3) / 20(30.8) / 0(0.0) | | 1.05 (0.62-1.79) | 0.8531 |  | -77.1 / -46.4 / +39.0 | 0.0637 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.14 (0.65-2.01) | 0.6474 |  |  | 0.0762 |
| ***CFH*** | rs1410996 | G | A | | 12 mo | | 186 / 160 / 47 | | Additive | 52(28.5) / 47(29.4) / 19(40.4) | | 1.34 (0.97-1.85) | 0.0793 |  | -68.1 / -67.3 / -81.8 | 0.2287 |
|  |  |  |  | |  | |  | | Recessive |  | | 2.14 (0.93-3.90) | 0.0923 |  |  | 0.2071 |
|  |  |  |  | | 24 mo | | 173 / 149 / 44 | | Additive | 49(28.3) / 43(28.9) / 16(36.4) | | 1.17 (0.84-1.62) | 0.3498 |  | -75.5 / -64.7 / -65.8 | 0.2459 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.35 (0.68-2.70) | 0.3938 |  |  | 0.6717 |
| ***CFI*** | rs10033900 | T | C | | 12 mo | | 192 / 162 / 39 | | Additive | 58(30.2) / 48(29.6) / 13(33.3) | | 1.06 (0.76-1.47) | 0.7271 |  | -68.8 / -73.2 / -60.6 | 0.7528 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.18 (0.57-2.43) | 0.6575 |  |  | 0.567 |
|  |  |  |  | | 24 mo | | 179 / 150 / 36 | | Additive | 53(29.6) / 43(28.7) / 11 (30.6) | | 1.05 (0.76-1.46) | 0.7727 |  | -64.5 / -79.3 / -59.6 | 0.4917 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.11 (0.54-2.29) | 0.7732 |  |  | 0.5691 |
| ***C2*** | rs9332739§ | G | C | | 12 mo | | 385 / 8 / 1 | | Additive | 115(29.9) / 4(50.0) / 0(0.0) | | 2.53 (0.63-10.1) | 0.189 |  | -68.7 / -136.0 / -2.0 | 0.3863 |
|  |  |  |  | |  | |  | | Dominant |  | | 4.88 (0.86-27.5) | 0.0726 |  |  | 0.3491 |
|  |  |  |  | | 24 mo | | 358 / 7 / 1 | | Additive | 105(29.3) / 3(42.9) / 0(0.0) | | 2.00 (0.54-7.36) | 0.2937 |  | -70.4 / -55.9 / +9.0 | 0.1779 |
|  |  |  |  | |  | |  | | Dominant |  | | 2.97 (0.61-14.6) | 0.1796 |  |  | 0.1051 |
| ***CFB*** | rs641153§ | G | A | | 12 mo | | 343 / 48 / 1 | | Additive | 105(30.6) / 14(29.2) / 0(0.0) | | 0.78 (0.41-1.48) | 0.4514 |  | -67.5 / -82.0 / -2.0 | 0.2974 |
|  |  |  |  | |  | |  | | Dominant |  | | 0.82 (0.42-1.59) | 0.5583 |  |  | 0.3109 |
|  |  |  |  | | 24 mo | | 318 / 45 / 1 | | Additive | 94(29.6) / 14(31.1) / 0(0.0) | | 1.04 (0.54-1.97) | 0.9175 |  | -69.3 / -76.1 / +22.0 | 0.9019 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.11 (0.57-2.16) | 0.7586 |  |  | 0.908 |
| ***SKIV2L*** | rs429608§ | G | A | | 12 mo | | 344 / 44 / 4 | | Additive | 103(29.9) / 14(34.1) / 1(25.0) | | 1.04 (0.57-1.89) | 0.8913 |  | -64.9 / -88.9 / -67.3 | 0.2597 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.16 (0.60-2.27) | 0.6591 |  |  | 0.1717 |
|  |  |  |  | | 24 mo | | 318 / 42 / 4 | | Additive | 92(28.9) / 13(31.0) / 1(25.0) | | 1.14 (0.62-2.10) | 0.6711 |  | -66.7 / -93.7 / +78.3 | 0.3128 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.29 (0.65-2.53) | 0.4647 |  |  | 0.9112 |
| ***VEGFA*** | rs699947 | C | A | | 12 mo | | 202 / 148 / 42 | | Additive | 62(30.7) / 42(28.4) / 14(33.3) | | 0.96 (0.70-1.32) | 0.7986 |  | -72.4 / -58.4 / -91.7 | 0.7382 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.22 (0.61-2.45) | 0.5688 |  |  | 0.4711 |
|  |  |  |  | | 24 mo | | 188 / 137 / 39 | | Additive | 53(28.2) / 42(30.7) / 11(28.2) | | 1.06 (0.77-1.46) | 0.7374 |  | -67.1 / -67.5 / -90.6 | 0.287 |
|  |  |  |  | |  | |  | | Recessive |  | | 0.93 (0.47-1.87) | 0.8455 |  |  | 0.5105 |
| ***VEGFA*** | rs3025039 | C | T | | 12 mo | | 236 / 133 / 25 | | Additive | 70(29.7) / 39(29.3) / 10 (40.0) | | 1.20 (0.84-1.70) | 0.3183 |  | -66.4 / -70.3 / -107.0 | 0.0988 |
|  |  |  |  | |  | |  | | Recessive |  | | 2.53 (0.97-6.62) | 0.0587 |  |  | 0.0601 |
|  |  |  |  | | 24 mo | | 219 / 124 / 23 | | Additive | 63(28.8) / 36(29.0) / 9(39.1) | | 1.27 (0.88-1.81) | 0.1979 |  | -65.9 / -71.2 / -105.4 | 0.1028 |
|  |  |  |  | |  | |  | | Recessive |  | | 2.22 (0.88-5.62) | 0.0937 |  |  | 0.0862 |
| ***ARMS2*** | rs10490924 | T | G | | 12 mo | | 196 / 150 / 47 | | Additive | 61(31.1) / 39(26.0) / 18(38.3) | | 1.08 (0.78-1.49) | 0.6487 |  | -62.9 / -62.4 / -118.6 | **0.0141** |
|  |  |  |  | |  | |  | | Recessive |  | | 1.85 (0.91-3.76) | 0.087 |  |  | **0.004** |
|  |  |  |  | | 24 mo | | 183 / 139 / 44 | | Additive | 55(30.1) / 36(25.9) / 17(38.6) | | 1.14 (0.82-1.58) | 0.4363 |  | -63.2 / -60.9 / -126.2 | **0.0384** |
|  |  |  |  | |  | |  | | Recessive |  | | 1.82 (0.90-3.71) | 0.0974 |  |  | **0.0258** |
| ***HTRA1*** | rs11200638 | A | G | | 12 mo | | 202 / 144 / 48 | | Additive | 63(31.2) / 37(25.7) / 19(39.6) | | 1.10 (0.80-1.51) | 0.5541 |  | -63.0 / -62.4 / -115.7 | **0.0141** |
|  |  |  |  | |  | |  | | Recessive |  | | 1.98 (0.98-4.00) | 0.0562 |  |  | **0.0033** |
|  |  |  |  | | 24 mo | | 188 / 133 / 45 | | Additive | 56(29.8) / 35(26.3) / 17(37.8) | | 1.18 (0.85-1.63) | 0.3164 |  | -62.3 / -62.4 / -123.7 | **0.0323** |
|  |  |  |  | |  | |  | | Recessive |  | | 1.94 (0.96-3.92) | 0.0664 |  |  | **0.0293** |
| ***SCARB1*** | rs5888 | C | T | | 12 mo | | 216 / 146 / 31 | | Additive | 63(29.2) / 45(30.8) / 11(35.5) | | 1.18 (0.84-1.66) | 0.3484 |  | -74.3 / -65.7 / -53.5 | 0.3705 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.48 (0.66-3.34) | 0.3441 |  |  | 0.5978 |
|  |  |  |  | | 24 mo | | 201 / 136 / 29 | | Additive | 60(29.9) / 38(27.9) / 10(34.5) | | 1.02 (0.73-1.44) | 0.8941 |  | -78.0 / -60.8 / -55.7 | 0.2012 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.55 (0.68-3.54) | 0.2948 |  |  | 0.8311 |
| ***PEDF*** | rs1136287 | C | T | | 12 mo | | 100 / 195 / 97 | | Additive | 33(33.0) / 50(25.6) / 35 (37.1) | | 1.14 (0.84-1.55) | 0.3895 |  | -85.6 / -60.6 / -69.1 | 0.4776 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.70 (0.93-3.11) | 0.1152 |  |  | 0.9152 |
|  |  |  |  | | 24 mo | | 92 / 182 / 91 | | Additive | 28(30.4) / 50(27.5) / 30(33.0) | | 1.14 (0.84-1.55) | 0.4095 |  | -80.6 / -64.5 / -69.9 | 0.7517 |
|  |  |  |  | |  | |  | | Recessive |  | | 1.33 (0.80-2.19) | 0.2712 |  |  | 0.9713 |
| ***SYN3/***  ***TIMP3*** | rs9621532§ | T | G | | 12 mo | | 372 / 20 / 1 | | Additive | 112(30.1) / 7(35.0) / 0(0.0) | | 0.88 (0.36-2.13) | 0.779 |  | -69.9 / -69.7 / -123.0 | 0.9419 |
|  |  |  | |  | |  | | Dominant |  | | 1.00 (0.38-2.59) | 0.9953 |  |  | 0.9511 |
|  |  |  |  | | 24 mo | | 346 / 19 / 1 | | Additive | 101(29.2) / 7(36.8) / 0(0.0) | | 0.91 (0.37-2.23) | 0.8287 |  | -69.3 / -73.5 / -207.0 | 0.8147 |
|  |  |  |  | |  | |  | | Dominant |  | | 1.06 (0.40-2.79) | 0.9148 |  |  | 0.8312 |
| ***APOE*** | apoE§§ | - | - | 12mo | | 42 / 274 / 70 | | ε2+ / ε3/ε3 / ε4+ | | | 15(35.7) / 80(29.2) / 23(32.9) | 1.02 (0.42-2.48) | 0.7846 |  | -77.1 / -74.4 / -47.3 | 0.1245 |
|  |  |  |  |  | |  | | others / ε2 carriers | | |  | 1.27 (0.67-2.41) | 0.3229 |  |  | 0.1027 |
|  |  |  |  |  | |  | | others / ε4 carriers | | |  | 1.16 (0.67-2.01) | 0.5278 |  |  | 0.0801 |
|  |  |  |  | 24mo | | 40 / 253 / 66 | | ε2+ / ε3/ε3 / ε4+ | | | 12(30.0) / 74(29.2) / 22(33.3) | 1.17 (0.65-2.11) | 0.3752 |  | -69.6 / -71.2 / -62.5 | 0.8101 |
|  |  |  |  |  | |  | | others / ε2 carriers | | |  | 1.08 (0.60-1.94) | 0.5985 |  |  | 0.6698 |
|  |  |  |  |  | |  | | others / ε4 carriers | | |  | 1.24 (0.70-2.20) | 0.4785 |  |  | 0.725 |

OCT = Optical Coherence Tomography; OR = Odds ratio; CI = Confidence interval; CSMT = Central subfield macular thickness

\*: Major allele homozygote / Heterozygote / Minor allele homozygote

\*\*: All odds ratio are calculated with respect to minor allele

†: Uncorrected *P*-value from logistic regression model. When applying Bonferroni correction, uncorrected *P*-value for significance should be less than 0.0031.

††: Uncorrected *P*-value from linear regression model. When applying Bonferroni correction, uncorrected *P*-value for significance should be less than 0.0031.

§: Analyzed under dominant model because of extremely low proportion of minor allele homozygotes

§§: ε2+ = ε2 carrier, ε4+ = ε4 carrier