

## Supplementary Online Content

Williams KM, Bentham GCG, Young IS, et al. Association between myopia, ultraviolet B radiation exposure, serum vitamin D concentrations, and genetic polymorphisms in vitamin D metabolic pathways in a multicountry European study. *JAMA Ophthalmol*. Published online December 1, 2016. doi:10.1001/jamaophthalmol.2016.4752.

**eTable.** Association between myopia and genetic variants associated with vitamin D metabolic pathway

This supplementary material has been provided by the authors to give readers additional information about their work.

**eTable.** Association between myopia and genetic variants associated with vitamin D metabolic pathway

| Chromosome | SNP        | Gene           | Numbers tested | OR   | 95% CI      | P*    |
|------------|------------|----------------|----------------|------|-------------|-------|
| 11         | rs7935792  | <i>CYP2R1</i>  | 872            | 2.17 | 1.28 - 3.68 | 0.004 |
| 11         | rs7117967  | <i>CYP2R1</i>  | 870            | 1.71 | 1.05 - 2.79 | 0.030 |
| 11         | rs10832306 | <i>CYP2R1</i>  | 877            | 1.58 | 1.02 - 2.45 | 0.043 |
| 20         | rs6097809  | <i>CYP24A1</i> | 867            | 0.45 | 0.20 - 0.99 | 0.048 |
| 11         | rs4316537  | <i>DHCR7</i>   | 862            | 0.51 | 0.24 - 1.09 | 0.083 |
| 12         | rs2269720  | <i>VDR</i>     | 871            | 0.76 | 0.54 - 1.07 | 0.113 |
| 4          | rs1565572  | <i>GC</i>      | 872            | 1.31 | 0.93 - 1.85 | 0.121 |
| 12         | rs11574143 | <i>VDR</i>     | 862            | 0.66 | 0.39 - 1.13 | 0.130 |
| 12         | rs1021469  | <i>VDR</i>     | 873            | 0.78 | 0.56 - 1.09 | 0.143 |
| 4          | rs705117   | <i>GC</i>      | 878            | 1.33 | 0.89 - 1.98 | 0.170 |
| 12         | rs4760655  | <i>VDR</i>     | 874            | 0.80 | 0.58 - 1.10 | 0.173 |
| 12         | rs11574077 | <i>VDR</i>     | 874            | 0.55 | 0.23 - 1.31 | 0.178 |
| 4          | rs16847050 | <i>GC</i>      | 868            | 1.30 | 0.86 - 1.94 | 0.210 |
| 9          | rs10881582 | <i>RXRA</i>    | 874            | 1.24 | 0.88 - 1.73 | 0.214 |
| 12         | rs4760648  | <i>VDR</i>     | 875            | 0.82 | 0.61 - 1.12 | 0.215 |
| 11         | rs12785878 | <i>DHCR7</i>   | 874            | 0.81 | 0.58 - 1.13 | 0.217 |
| 9          | rs11185659 | <i>RXRA</i>    | 872            | 1.24 | 0.88 - 1.74 | 0.225 |
| 20         | rs2762932  | <i>CYP24A1</i> | 874            | 1.27 | 0.86 - 1.86 | 0.226 |
| 20         | rs2762941  | <i>CYP24A1</i> | 871            | 1.21 | 0.89 - 1.65 | 0.232 |
| 12         | rs886441   | <i>VDR</i>     | 874            | 1.24 | 0.87 - 1.78 | 0.234 |
| 4          | rs222020   | <i>GC</i>      | 873            | 1.27 | 0.85 - 1.90 | 0.242 |
| 12         | rs11574027 | <i>VDR</i>     | 874            | 1.75 | 0.67 - 4.58 | 0.252 |
| 12         | rs4646537  | <i>VDR</i>     | 878            | 1.52 | 0.73 - 3.17 | 0.259 |
| 12         | rs11168302 | <i>VDR</i>     | 876            | 1.67 | 0.68 - 4.05 | 0.261 |
| 4          | rs2298850  | <i>GC</i>      | 853            | 0.82 | 0.57 - 1.17 | 0.264 |
| 9          | rs12339187 | <i>RXRA</i>    | 868            | 1.22 | 0.85 - 1.76 | 0.287 |
| 11         | rs1792284  | <i>CYP2R1</i>  | 863            | 0.83 | 0.59 - 1.17 | 0.289 |
| 20         | rs6127119  | <i>CYP24A1</i> | 873            | 1.20 | 0.84 - 1.69 | 0.314 |
| 4          | rs1491718  | <i>GC</i>      | 877            | 1.26 | 0.80 - 1.98 | 0.323 |
| 9          | rs914853   | <i>RXRA</i>    | 875            | 1.17 | 0.85 - 1.61 | 0.328 |
| 12         | rs2853564  | <i>VDR</i>     | 871            | 1.16 | 0.85 - 1.58 | 0.338 |
| 12         | rs2254210  | <i>VDR</i>     | 873            | 1.16 | 0.86 - 1.56 | 0.340 |
| 12         | rs2239186  | <i>VDR</i>     | 875            | 1.17 | 0.84 - 1.64 | 0.353 |
| 12         | rs10877011 | <i>VDR</i>     | 873            | 0.86 | 0.62 - 1.18 | 0.355 |
| 12         | rs4760169  | <i>VDR</i>     | 871            | 1.24 | 0.78 - 1.96 | 0.362 |
| 12         | rs12368653 | <i>VDR</i>     | 878            | 0.89 | 0.66 - 1.19 | 0.429 |
| 20         | rs2181874  | <i>CYP24A1</i> | 876            | 1.15 | 0.82 - 1.60 | 0.430 |
| 12         | rs3819545  | <i>VDR</i>     | 876            | 1.13 | 0.83 - 1.53 | 0.441 |

|    |            |         |     |      |             |       |
|----|------------|---------|-----|------|-------------|-------|
| 12 | rs7975232  | VDR     | 874 | 1.12 | 0.84 - 1.49 | 0.448 |
| 9  | rs6537944  | RXRA    | 875 | 1.23 | 0.70 - 2.16 | 0.464 |
| 20 | rs2585428  | CYP24A1 | 872 | 0.89 | 0.66 - 1.21 | 0.470 |
| 12 | rs731236   | VDR     | 870 | 1.12 | 0.82 - 1.51 | 0.480 |
| 4  | rs1155563  | GC      | 862 | 0.88 | 0.62 - 1.26 | 0.486 |
| 12 | rs12717991 | VDR     | 876 | 0.90 | 0.68 - 1.21 | 0.489 |
| 11 | rs949178   | DHCR7   | 877 | 0.81 | 0.45 - 1.48 | 0.498 |
| 9  | rs11185644 | RXRA    | 869 | 0.87 | 0.57 - 1.32 | 0.503 |
| 12 | rs2239179  | VDR     | 871 | 0.91 | 0.67 - 1.22 | 0.511 |
| 9  | rs4842196  | RXRA    | 876 | 1.12 | 0.80 - 1.57 | 0.514 |
| 12 | rs2239182  | VDR     | 875 | 0.91 | 0.68 - 1.22 | 0.516 |
| 20 | rs2245153  | CYP24A1 | 874 | 1.13 | 0.78 - 1.64 | 0.529 |
| 12 | rs2238136  | VDR     | 875 | 1.11 | 0.80 - 1.53 | 0.548 |
| 4  | rs11939173 | GC      | 871 | 1.08 | 0.80 - 1.46 | 0.597 |
| 20 | rs6068816  | CYP24A1 | 867 | 0.87 | 0.51 - 1.48 | 0.605 |
| 20 | rs2296241  | CYP24A1 | 875 | 1.08 | 0.80 - 1.45 | 0.619 |
| 12 | rs7136534  | VDR     | 864 | 1.09 | 0.76 - 1.55 | 0.641 |
| 12 | rs11168268 | VDR     | 875 | 1.07 | 0.80 - 1.44 | 0.659 |
| 12 | rs1544410  | VDR     | 875 | 1.07 | 0.79 - 1.45 | 0.669 |
| 20 | rs11907350 | CYP24A1 | 872 | 0.83 | 0.35 - 1.97 | 0.671 |
| 11 | rs1496167  | CYP2R1  | 870 | 0.93 | 0.68 - 1.29 | 0.674 |
| 12 | rs1048691  | VDR     | 874 | 1.08 | 0.75 - 1.56 | 0.674 |
| 12 | rs10875702 | VDR     | 873 | 1.08 | 0.74 - 1.59 | 0.685 |
| 20 | rs2248359  | CYP24A1 | 870 | 1.07 | 0.78 - 1.45 | 0.687 |
| 20 | rs1570669  | CYP24A1 | 873 | 0.94 | 0.69 - 1.28 | 0.706 |
| 12 | rs10875693 | VDR     | 874 | 0.94 | 0.69 - 1.29 | 0.719 |
| 9  | rs11103482 | RXRA    | 867 | 0.91 | 0.56 - 1.50 | 0.720 |
| 11 | rs12419657 | CYP2R1  | 877 | 0.92 | 0.58 - 1.48 | 0.738 |
| 9  | rs3118526  | RXRA    | 876 | 1.08 | 0.69 - 1.69 | 0.742 |
| 12 | rs2107301  | VDR     | 868 | 1.05 | 0.77 - 1.44 | 0.757 |
| 9  | rs4240705  | RXRA    | 874 | 1.05 | 0.77 - 1.43 | 0.766 |
| 12 | rs6580642  | VDR     | 874 | 1.06 | 0.71 - 1.58 | 0.791 |
| 9  | rs3118571  | RXRA    | 873 | 0.96 | 0.71 - 1.30 | 0.791 |
| 9  | rs11103473 | RXRA    | 875 | 0.96 | 0.71 - 1.32 | 0.818 |
| 20 | rs4809960  | CYP24A1 | 870 | 0.96 | 0.67 - 1.38 | 0.837 |
| 11 | rs7950649  | DHCR7   | 869 | 0.96 | 0.61 - 1.51 | 0.852 |
| 11 | rs11023371 | CYP2R1  | 862 | 1.06 | 0.58 - 1.92 | 0.861 |
| 20 | rs6068810  | CYP24A1 | 869 | 0.94 | 0.46 - 1.91 | 0.862 |
| 12 | rs4516035  | VDR     | 875 | 1.03 | 0.75 - 1.40 | 0.870 |
| 20 | rs4809959  | CYP24A1 | 877 | 1.02 | 0.76 - 1.37 | 0.892 |
| 12 | rs2283342  | VDR     | 863 | 0.98 | 0.67 - 1.43 | 0.896 |
| 9  | rs7039190  | RXRA    | 868 | 0.95 | 0.46 - 2.00 | 0.901 |
| 20 | rs3787557  | CYP24A1 | 873 | 1.03 | 0.67 - 1.58 | 0.902 |
| 9  | rs3118536  | RXRA    | 868 | 0.98 | 0.66 - 1.44 | 0.904 |
| 20 | rs3787555  | CYP24A1 | 876 | 0.98 | 0.70 - 1.37 | 0.904 |

|    |            |                |     |      |             |       |
|----|------------|----------------|-----|------|-------------|-------|
| 12 | rs11574026 | <i>VDR</i>     | 874 | 1.02 | 0.63 - 1.66 | 0.937 |
| 20 | rs6022999  | <i>CYP24A1</i> | 871 | 1.01 | 0.71 - 1.44 | 0.937 |
| 11 | rs1037379  | <i>CYP2R1</i>  | 864 | 1.01 | 0.73 - 1.40 | 0.943 |
| 12 | rs11574024 | <i>VDR</i>     | 872 | 0.99 | 0.59 - 1.64 | 0.961 |
| 20 | rs927650   | <i>CYP24A1</i> | 871 | 0.99 | 0.74 - 1.34 | 0.968 |
| 20 | rs2274130  | <i>CYP24A1</i> | 866 | 1.00 | 0.70 - 1.42 | 0.982 |
| 4  | rs12512631 | <i>GC</i>      | 878 | 1.00 | 0.74 - 1.37 | 0.983 |
| 12 | rs2189480  | <i>VDR</i>     | 869 | 1.00 | 0.74 - 1.35 | 0.992 |
| 20 | rs927651   | <i>CYP24A1</i> | 872 | 1.00 | 0.71 - 1.42 | 0.992 |

\*No adjustment for multiple testing.

SNP = single nucleotide polymorphism, OR = odds ratio, 95% CI = 95% confidence interval, p = p value.