

S4 Table: Mean variable importance of top 20 variants.

Rank	Gene	Variant	Mean variable importance
1	<i>HERC2</i>	rs12913832*	74.63%
2	<i>OCA2</i>	rs121918166 + rs74653330	8.54%
3	<i>SLC45A2</i>	rs16891982*	6.23%
4	<i>OCA2</i>	rs1800407*	5.26%
5	<i>TYRP1</i>	rs1408799	1.54%
6	<i>SLC24A4</i>	rs4904927	1.19%
7	<i>SLC24A4</i>	rs12896399*	0.68%
8	<i>TYR</i>	rs1126809	0.47%
9	<i>TYR</i>	rs7120151 ¹	0.46%
10	<i>SLC22A4</i>	rs10131374	0.32%
11	<i>OCA2</i>	rs1800401	0.32%
12	<i>SLC24A4</i>	rs17128324	0.11%
13	<i>TYRP1</i>	rs10491745	0.066%
14	<i>TYRP1</i>	rs62538956	0.055%
15	<i>TYRP1</i>	rs74606098	0.048%
16	<i>TYR</i>	rs2047512	0.044%
17	<i>TYR</i>	rs11018509	0.015%
18	<i>TYR</i>	rs1393350*	0.012%
19	<i>TYRP1</i>	rs201447946	0.007%
20	<i>IRF4</i>	rs1050976	0.006%

¹Variant not included in final EC11 SNP set

*Part of IrisPlex prediction model [3]