

Human genetics in the 21<sup>st</sup> century: using bioinformatics to link genotype and phenotype

Whitehead Institute High School Student Program 2015, Bioinformatics and Research Computing

<b>Alter ego's name</b>	<b>Alter ego's ethnicity</b>	<b>Closest reference population</b>
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	SNP ID	your genotype	chromosome	nearby gene?	Trait associated with your genotype	most common genotype for your population
1	rs671	AA	chr12	ALDH2	Alcohol flush	GG (for CEU)
2	rs713598	CC	chr7	TAS2R38	Can perceive bitter taste	CG (same)
3	rs2472297	TT	chr15		Slightly increased coffee consumption	CC
4	rs17822931	TT	chr16	ABCC11	Dry earwax; less body odor	CC
5	rs2802292	GG	chr6	FOXO3	Slightly more likely to live to 100	GT
6	rs4988235	GG	chr2	MCM6	Lactose intolerance (appears as CC on negative strand)	AA
7	rs560887	CC	chr2	G6PC2	Slightly higher blood glucose level (GG on negative strand)	CT
8	rs1815739	CT	Chr11	ACTN3	Likely sprinter muscle performance	CT
9	rs1042725	TT	chr12	HMGA2	Average height	CT
10	rs7495174	AA	chr15	OCA2	More likely to have blue/gray eyes	AA
11	rs10427255	CC	chr2		Higher odds of photic sneeze	CT
12	rs1426654	AA	chr15	SLC24A5	Probably light-skinned	AA
13	rs4481887	AA	chr1		More likely to smell odor in urine after eating asparagus	GG

Traits of your alter ego, based on associations: