

Supplemental Table 1. Association of non-bitterness variants with perceived bitterness and alcohol consumption

Perceived bitterness in:		Alcohol consumption	black coffee preference	Reference
brussels sprouts	PROP			
0.03 (-0.03, 0.09) p=0.372	-0.04 (-0.29, 0.2) p=0.721	0.08 (-0.17, 0.33) p=0.548	0.16 (-0.09, 0.41) p=0.216	(Keller <i>et al.</i> 2012)
0 (-0.07, 0.06) p=0.884	<b>-0.29 (-0.55, -0.03) p=0.029</b>	0.14 (-0.12, 0.4) p=0.288	-0.26 (-0.52, 0) p=0.049	(Fayzullina <i>et al.</i> 2015)
0.04 (-0.03, 0.1) p=0.293	-0.27 (-0.54, 0) p=0.051	-0.17 (-0.43, 0.1) p=0.223	-0.02 (-0.29, 0.24) p=0.868	(Fayzullina <i>et al.</i> 2015)
-0.03 (-0.1, 0.04) p=0.395	0 (-0.28, 0.28) p=0.983	0 (-0.28, 0.29) p=0.976	0.03 (-0.25, 0.32) p=0.812	(Landgren <i>et al.</i> 2011)
0 (1, 1) p=1	0 (1, 1) p=1	0 (1, 1) p=1	0 (1, 1) p=1	(Landgren <i>et al.</i> 2011)
0.03 (-0.04, 0.09) p=0.424	0 (-0.25, 0.25) p=0.985	0.24 (-0.02, 0.5) p=0.075	-0.04 (-0.3, 0.21) p=0.738	(Landgren <i>et al.</i> 2011)
-0.03 (-0.1, 0.05) p=0.489	-0.15 (-0.44, 0.14) p=0.304	-0.05 (-0.35, 0.25) p=0.755	0.3 (0.02, 0.6) p=0.039	(Landgren <i>et al.</i> 2011)
0.08 (-0.05, 0.22) p=0.235	-0.41 (-0.97, 0.13) p=0.145	-0.26 (-0.8, 0.28) p=0.346	-0.39 (-0.9, 0.13) p=0.14	(Landgren <i>et al.</i> 2011)
-0.03 (-0.15, 0.08) p=0.587	0.21 (-0.24, 0.66) p=0.359	-0.22 (-0.68, 0.25) p=0.365	-0.04 (-0.51, 0.43) p=0.852	(Landgren <i>et al.</i> 2011)
0.05 (-0.02, 0.11) p=0.161	-0.22 (-0.48, 0.04) p=0.095	0.06 (-0.2, 0.33) p=0.65	-0.03 (-0.29, 0.23) p=0.807	(Fushan <i>et al.</i> 2010)
-0.06 (-0.16, 0.04) p=0.22	0.17 (-0.22, 0.56) p=0.39	0.01 (-0.37, 0.4) p=0.956	0.14 (-0.25, 0.53) p=0.486	(Pirastu <i>et al.</i> 2015)
-0.02 (-0.12, 0.07) p=0.627	0.25 (-0.13, 0.63) p=0.2	0.05 (-0.34, 0.44) p=0.791	0.14 (-0.26, 0.54) p=0.503	(McRae <i>et al.</i> 2011)
-0.03 (-0.14, 0.08) p=0.576	0.14 (-0.29, 0.58) p=0.52	0.17 (-0.27, 0.61) p=0.452	0.13 (-0.32, 0.59) p=0.579	(Jaeger <i>et al.</i> 2012)
0.01 (-0.06, 0.07) p=0.867	0.05 (-0.22, 0.31) p=0.736	0 (-0.27, 0.27) p=0.998	-0.24 (-0.51, 0.03) p=0.083	(Jaeger <i>et al.</i> 2012)
0.05 (-0.03, 0.14) p=0.233	0.28 (-0.06, 0.62) p=0.11	0.18 (-0.17, 0.53) p=0.317	0.23 (-0.12, 0.58) p=0.204	(Knaapila <i>et al.</i> 2011)
0.01 (-0.07, 0.09) p=0.785	0.2 (-0.13, 0.53) p=0.239	0.02 (-0.32, 0.36) p=0.915	0.29 (-0.05, 0.64) p=0.095	(Knaapila <i>et al.</i> 2011)
0.02 (-0.09, 0.13) p=0.753	0.11 (-0.32, 0.54) p=0.601	0.08 (-0.36, 0.52) p=0.718	0.01 (-0.44, 0.47) p=0.97	(Shigemura <i>et al.</i> 2011)
0.03 (-0.04, 0.1) p=0.429	0 (-0.29, 0.29) p=0.985	0.09 (-0.21, 0.39) p=0.546	-0.06 (-0.36, 0.23) p=0.675	(Pirastu <i>et al.</i> 2011)
-0.01 (-0.08, 0.05) p=0.651	-0.15 (-0.4, 0.11) p=0.255	-0.07 (-0.34, 0.2) p=0.603	-0.07 (-0.33, 0.19) p=0.594	(Pirastu <i>et al.</i> 2011)
0.06 (-0.13, 0.26) p=0.524	0.71 (-0.12, 1.58) p=0.095	-0.25 (-0.98, 0.47) p=0.497	0.74 (-0.11, 1.8) p=0.117	(Chen <i>et al.</i> 2012)
-0.1 (-0.27, 0.08) p=0.273	-0.24 (-1.02, 0.5) p=0.537	-0.61 (-1.32, 0.1) p=0.092	-0.52 (-1.22, 0.19) p=0.145	(Shigemura <i>et al.</i> 2011)
-0.05 (-0.12, 0.02) p=0.184	-0.22 (-0.5, 0.06) p=0.127	0.2 (-0.08, 0.48) p=0.161	-0.04 (-0.32, 0.24) p=0.77	(Pirastu <i>et al.</i> 2012)

Variant	Gene	reported taste association	broccoli	artificial sweeteners
rs1761667	CD36	fat	0.01 (-0.04, 0.07) p=0.607	-0.02 (-0.09, 0.04) p=0.487
rs838133	FGF21	sweet	0 (-0.06, 0.05) p=0.892	-0.01 (-0.08, 0.06) p=0.774
rs1421085	FTO	sweet	-0.01 (-0.07, 0.05) p=0.775	0.03 (-0.04, 0.1) p=0.345
rs26802	GHRL	sweet	-0.02 (-0.08, 0.04) p=0.446	0.01 (-0.07, 0.08) p=0.817
rs34911341	GHRL	sweet	0 (1, 1) p=1	0 (1, 1) p=1
rs35680	GHRL	sweet	<b>-0.07 (-0.12, -0.01) p=0.017</b>	-0.02 (-0.09, 0.04) p=0.47
rs42451	GHRL	sweet	-0.02 (-0.08, 0.04) p=0.548	0.02 (-0.06, 0.1) p=0.612
rs4684677	GHRL	sweet	-0.02 (-0.14, 0.1) p=0.73	<b>-0.14 (-0.28, 0) p=0.047</b>
rs696217	GHRL	sweet	<b>0.13 (0.03, 0.23) p=0.011</b>	<b>0.16 (0.04, 0.28) p=0.008</b>
rs7792845	GNAT3	sweet	0.01 (-0.04, 0.07) p=0.622	-0.03 (-0.1, 0.04) p=0.411
rs9276975	HLA-DOA	wine	-0.06 (-0.14, 0.02) p=0.161	0.05 (-0.05, 0.15) p=0.341
rs28757581	OR2J3	cis-3-hexen-1-ol	0.03 (-0.05, 0.12) p=0.453	0.04 (-0.07, 0.14) p=0.492
rs9295791	OR2J3	cis-3-hexen-1-ol	0.06 (-0.03, 0.16) p=0.207	0.05 (-0.07, 0.16) p=0.436
rs6591536	OR5A1	b-ionone	-0.02 (-0.08, 0.04) p=0.507	-0.08 (-0.15, -0.01) p=0.03
rs61729907	OR7D4	androstenone	-0.02 (-0.1, 0.05) p=0.549	0.02 (-0.07, 0.11) p=0.637
rs5020278	ORD74	ethanol burn	-0.03 (-0.11, 0.04) p=0.382	-0.01 (-0.1, 0.07) p=0.763
rs34160967	TAS1R1	umami	0.08 (-0.01, 0.17) p=0.085	-0.03 (-0.15, 0.08) p=0.578
rs3935570	TAS1R2	wine	0.02 (-0.04, 0.09) p=0.439	0.01 (-0.07, 0.09) p=0.793
rs4920566	TAS1R2	wine	-0.04 (-0.09, 0.02) p=0.209	0.03 (-0.04, 0.1) p=0.433
rs111615792	TAS1R3	umami	0.02 (-0.15, 0.19) p=0.822	0.01 (-0.19, 0.22) p=0.897
rs307377	TAS1R3	umami	-0.02 (-0.17, 0.13) p=0.775	0.02 (-0.17, 0.21) p=0.834
rs2277675	TRPV1	beets	<b>-0.06 (-0.12, 0) p=0.043</b>	0 (-0.07, 0.07) p=0.963

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**Supplemental Table 2. Associations of traits and alcohol consumption**

Trait		Perception of bitterness in:				preference for black coffee
		PTC	brussels sprouts	artificial sweeteners	broccoli	
Perception of bitterness in:	PTC	NA	-0.01 (-0.37, 0.34) p=0.938	0.03 (-0.3, 0.36) p=0.862	0.28 (-0.12, 0.68) p=0.169	0.01 (-0.2, 0.23) p=0.912
	Brussels sprouts	0 (-0.05, 0.05) p=0.942	NA	0.06 (-0.02, 0.15) p=0.123	<b>0.33 (0.24, 0.43)</b> p<0.001	<b>-0.06 (-0.11, -0.01)</b> p=0.025
	artificial sweeteners	0 (-0.05, 0.06) p=0.941	0.07 (-0.02, 0.16) p=0.123	NA	<b>0.12 (0.01, 0.23)</b> p=0.027	0.04 (-0.01, 0.1) p=0.123
	broccoli	0.03 (-0.02, 0.07) p=0.232	<b>0.25 (0.18, 0.32)</b> p<0.001	<b>0.08 (0.01, 0.15)</b> p=0.027	NA	-0.04 (-0.09, 0) p=0.055
	preference for black coffee	0.02 (-0.19, 0.23) p=0.841	<b>-0.38 (-0.73, -0.04)</b> p=0.03	0.25 (-0.07, 0.58) p=0.129	-0.37 (-0.77, 0.04) p=0.076	NA
frequency of alcohol consumption	0.09 (-0.12, 0.3) p=0.379	0.16 (-0.19, 0.52) p=0.371	0.3 (-0.04, 0.63) p=0.081	<b>0.52 (0.11, 0.94)</b> p=0.013	<b>0.27 (0.06, 0.48)</b> p=0.013	