Table S1. Distribution of SNP genotypes in cases and controls, by race

				European-Americans				African-Americans			
				Cases (n=922)		Controls (n=1074)		Cases (n=305)		Controls (n=251)	
Gene	SNP	Major/minor allele	Genotype	n	(col %)	n	(col %)	n	(col %)	n	(col %)
ALCOHOL METABOLISM GENES											
ADH1B	rs12507573	C/A	AA	188	20.4%	234	21.8%	56	18.4%	40	15.9%
			AC	462	50.1%	536	49.9%	149	48.9%	127	50.6%
			CC	272	29.5%	304	28.3%	100	32.8%	83	33.1%
			missing	0	0.0%	0	0.0%	0	0.0%	1	0.4%
	rs1042026	A/G	GG	73	7.9%	81	7.5%	3	1.0%	5	2.0%
			GA	382	41.4%	457	42.6%	54	17.7%	36	14.3%
			AA	467	50.7%	536	49.9%	248	81.3%	210	83.7%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs7673353	C/T	TT	0	0.0%	0	0.0%	7	2.3%	12	4.8%
			TC	3	0.3%	6	0.6%	89	29.2%	65	25.9%
			CC	919	99.7%	1068	99.4%	209	68.5%	174	69.3%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs17028834	T/C	CC	1	0.1%	0	0.0%	2	0.7%	5	2.0%
			CT	3	0.3%	2	0.2%	80	26.2%	50	19.9%
			TT	918	99.6%	1072	99.8%	223	73.1%	196	78.1%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1693457	T/C	CC	27	2.9%	27	2.5%	9	3.0%	16	6.4%
			CT	297	32.2%	333	31.0%	88	28.9%	86	34.3%
			TT	597	64.8%	714	66.5%	208	68.2%	148	59.0%
			missing	1	0.1%	0	0.0%	0	0.0%	1	0.4%
	rs1229984	G/A	AA	0	0.0%	3	0.3%	0	0.0%	0	0.0%
			AG	30	3.3%	71	6.6%	1	0.3%	5	2.0%
			GG	892	96.7%	1000	93.1%	304	99.7%	246	98.0%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1159918	G/T	TT	129	14.0%	138	12.8%	161	52.8%	140	55.8%
			TG	419	45.4%	485	45.2%	116	38.0%	93	37.1%
			GG	374	40.6%	451	42.0%	28	9.2%	18	7.2%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1229982	G/T	TT	30	3.3%	45	4.2%	69	22.6%	51	20.3%
			TG	282	30.6%	327	30.4%	146	47.9%	125	49.8%
			GG	610	66.2%	702	65.4%	90	29.5%	75	29.9%
			missing	0.0%	0	0.0%	0	0.0%	0	0.0%	0.0%
ADH1C	rs2298753	T/C	CC	15	1.6%	15	1.4%	0	0.0%	0	0.0%
			CT	186	20.2%	177	16.5%	20	6.6%	14	5.6%
			TT	721	78.2%	882	82.1%	285	93.4%	237	94.4%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1614972	C/T	TT	73	7.9%	96	8.9%	67	22.0%	67	26.7%
			TC	403	43.7%	446	41.5%	144	47.2%	129	51.4%
			CC	446	48.4%	532	49.5%	94	30.8%	55	21.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1391088	C/A	AA	3	0.3%	4	0.4%	2	0.7%	2	0.8%
			AC	118	12.8%	161	15.0%	55	18.0%	36	14.3%
			CC	801	86.9%	909	84.6%	248	81.3%	213	84.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1693482	C/T	TT	158	17.1%	172	16.0%	6	2.0%	4	1.6%
			TC	437	47.4%	497	46.3%	94	30.8%	64	25.5%
			CC	325	35.2%	403	37.5%	205	67.2%	183	72.9%
			missing	2	0.2%	2	0.2%	0	0.0%	0	0.0%
	rs1631460	C/G	GG	160	17.4%	173	16.1%	6	2.0%	4	1.6%
			GC	443	48.0%	508	47.3%	95	31.1%	65	25.9%
			CC	318	34.5%	393	36.6%	204	66.9%	182	72.5%
			missing	1	0.1%	0	0.0%	0	0.0%	0	0.0%
	rs11936869	C/G	GG	64	6.9%	69	6.4%	53	17.4%	56	22.3%
			GC	354	38.4%	430	40.0%	143	46.9%	122	48.6%
			CC	504	54.7%	575	53.5%	109	35.7%	72	28.7%
			missing	0	0.0%	0	0.0%	0	0.0%	1	0.4%

Table S1. Distribution of SNP genotypes in cases and controls, by race

				European-Americans				African-Americans			
				Cases (n=922)		Controls (n=1074)		Cases (n=305)		Controls (n=251)	
Gene	SNP	Major/minor allele	Genotype	n	(col %)	n	(col %)	n	(col %)	n	(col %)
ADH4	rs29001227	A/T	TT	1	0.1%	1	0.1%	8	2.6%	8	3.2%
			TA	4	0.4%	1	0.1%	92	30.2%	59	23.5%
			AA	917	99.5%	1072	99.8%	205	67.2%	184	73.3%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1126672	C/T	TT	53	5.7%	82	7.6%	6	2.0%	2	0.8%
			TC	386	41.9%	434	40.4%	60	19.7%	46	18.3%
			CC	483	52.4%	558	52.0%	239	78.4%	203	80.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs4699710	T/C	CC	70	7.6%	98	9.1%	13	4.3%	5	2.0%
			CT	412	44.7%	458	42.6%	90	29.5%	78	31.1%
			TT	440	47.7%	518	48.2%	202	66.2%	168	66.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs10017466	T/C	CC	72	7.8%	99	9.2%	40	13.1%	32	12.7%
			CT	414	44.9%	459	42.7%	143	46.9%	101	40.2%
			TT	436	47.3%	516	48.0%	121	39.7%	118	47.0%
			missing	0	0.0%	0	0.0%	1	0.3%	0	0.0%
	rs1800759	C/A	AA	114	12.4%	150	14.0%	171	56.1%	152	60.6%
			AC	472	51.2%	527	49.1%	113	37.0%	83	33.1%
			CC	336	36.4%	397	37.0%	21	6.9%	16	6.4%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1800761	G/A	AA	31	3.4%	28	2.6%	26	8.5%	22	8.8%
			AG	293	31.8%	343	31.9%	124	40.7%	100	39.8%
			GG	598	64.9%	703	65.5%	155	50.8%	129	51.4%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs3762894	T/C	CC	25	2.7%	20	1.9%	14	4.6%	17	6.8%
			CT	247	26.8%	306	28.5%	99	32.5%	73	29.1%
			TT	650	70.5%	748	69.6%	192	63.0%	161	64.1%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
ADH7	rs284787	C/T	TT	61	6.6%	58	5.4%	6	2.0%	6	2.4%
			TC	339	36.8%	384	35.8%	78	25.6%	57	22.7%
			CC	522	56.6%	632	58.8%	221	72.5%	188	74.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs894369	C/G	GG	32	3.5%	43	4.0%	7	2.3%	6	2.4%
			GC	275	29.8%	356	33.1%	77	25.2%	68	27.1%
			CC	615	66.7%	675	62.8%	221	72.5%	176	70.1%
			missing	0	0.0%	0	0.0%	0	0.0%	1	0.4%
	rs17588403	T/A	AA	44	4.8%	31	2.9%	4	1.3%	3	1.2%
			AT	274	29.7%	344	32.0%	66	21.6%	58	23.1%
			TT	604	65.5%	699	65.1%	235	77.0%	190	75.7%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1154454	T/C	CC	24	2.6%	31	2.9%	49	16.1%	48	19.1%
			CT	250	27.1%	309	28.8%	146	47.9%	128	51.0%
			TT	648	70.3%	734	68.3%	110	36.1%	75	29.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1154456	T/C	CC	116	12.6%	127	11.8%	7	2.3%	7	2.8%
			CT	438	47.5%	494	46.0%	87	28.5%	68	27.1%
			TT	368	39.9%	453	42.2%	211	69.2%	176	70.1%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1154460	G/A	AA	194	21.0%	218	20.3%	66	21.6%	58	23.1%
			AG	466	50.5%	544	50.7%	169	55.4%	127	50.6%
			GG	259	28.1%	312	29.1%	70	23.0%	65	25.9%
			missing	3	0.3%	0	0.0%	0	0.0%	1	0.4%
	rs971074	G/A	AA	7	0.8%	10	0.9%	8	2.6%	5	2.0%
			AG	165	17.9%	210	19.6%	101	33.1%	70	27.9%
			GG	750	81.3%	854	79.5%	196	64.3%	176	70.1%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Table S1. Distribution of SNP genotypes in cases and controls, by race

				European-Americans				African-Americans			
				Cases (n=922)		Controls (n=1074)		Cases (n=305)		Controls (n=251)	
Gene	SNP	Major/minor allele	Genotype	n	(col %)	n	(col %)	n	(col %)	n	(col %)
	rs1573496	C/G	GG	5	0.5%	9	0.8%	0	0.0%	0	0.0%
			GC	154	16.7%	190	17.7%	7	2.3%	6	2.4%
			CC	762	82.6%	875	81.5%	298	97.7%	245	97.6%
			missing	1	0.1%	0	0.0%	0	0.0%	0	0.0%
ALDH2	rs4767939	A/G	GG	35	3.8%	39	3.6%	52	17.0%	38	15.1%
			GA	297	32.2%	315	29.3%	145	47.5%	125	49.8%
			AA	589	63.9%	720	67.0%	108	35.4%	88	35.1%
			missing	1	0.1%	0	0.0%	0	0.0%	0	0.0%
	rs2238151	T/C	CC	119	12.9%	125	11.6%	257	84.3%	179	71.3%
			CT	436	47.3%	464	43.2%	46	15.1%	71	28.3%
			TT	363	39.4%	482	44.9%	2	0.7%	1	0.4%
			missing	4	0.4%	3	0.3%	0	0.0%	0	0.0%
	rs7312055	G/A	AA	0	0.0%	0	0.0%	28	9.2%	12	4.8%
			AG	5	0.5%	8	0.7%	111	36.4%	101	40.2%
			GG	917	99.5%	1066	99.3%	166	54.4%	138	55.0%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs2158029	G/A	AA	0	0.0%	0	0.0%	6	2.0%	1	0.4%
			AG	6	0.7%	11	1.0%	45	14.8%	41	16.3%
			GG	916	99.3%	1063	99.0%	254	83.3%	209	83.3%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs16941667	C/T	TT	6	0.7%	5	0.5%	6	2.0%	4	1.6%
			TC	153	16.6%	158	14.7%	74	24.3%	58	23.1%
			CC	763	82.8%	911	84.8%	225	73.8%	188	74.9%
			missing	0	0.0%	0	0.0%	0	0.0%	1	0.4%
	rs16941669	T/G	GG	14	1.5%	11	1.0%	2	0.7%	0	0.0%
			GT	174	18.9%	190	17.7%	50	16.4%	36	14.3%
			TT	734	79.6%	872	81.2%	253	83.0%	214	85.3%
			missing	0	0.0%	1	0.1%	0	0.0%	1	0.4%
CYP2E1	rs3813865	G/C	CC	0	0.0%	1	0.1%	4	1.3%	3	1.2%
			CG	45	4.9%	49	4.6%	76	24.9%	53	21.1%
			GG	877	95.1%	1023	95.3%	225	73.8%	195	77.7%
			missing	0	0.0%	1	0.1%	0	0.0%	0	0.0%
	rs3813867	G/C	CC	1	0.1%	0	0.0%	1	0.3%	1	0.4%
			CG	51	5.5%	58	5.4%	30	9.8%	25	10.0%
			GG	870	94.4%	1016	94.6%	273	89.5%	224	89.2%
			missing	0	0.0%	0	0.0%	1	0.3%	1	0.4%
	rs8192772	T/C	CC	6	0.7%	7	0.7%	3	1.0%	2	0.8%
			CT	127	13.8%	146	13.6%	64	21.0%	53	21.1%
			TT	789	85.6%	921	85.8%	237	77.7%	196	78.1%
			missing	0	0.0%	0	0.0%	1	0.3%	0	0.0%
	rs915908	G/A	AA	21	2.3%	27	2.5%	0	0.0%	1	0.4%
			AG	211	22.9%	266	24.8%	18	5.9%	22	8.8%
			GG	690	74.8%	781	72.7%	287	94.1%	228	90.8%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs915909	C/T	TT	0	0.0%	0	0.0%	5	1.6%	2	0.8%
			TC	1	0.1%	4	0.4%	53	17.4%	40	15.9%
			CC	921	99.9%	1070	99.6%	246	80.7%	204	81.3%
			missing	0	0.0%	0	0.0%	1	0.3%	5	2.0%
	rs7092584	C/T	TT	11	1.2%	9	0.8%	4	1.3%	5	2.0%
			TC	168	18.2%	197	18.3%	80	26.2%	58	23.1%
			CC	743	80.6%	868	80.8%	219	71.8%	187	74.5%
			missing	0	0.0%	0	0.0%	2	0.7%	1	0.4%
	rs743535	C/T	TT	11	1.2%	6	0.6%	7	2.3%	4	1.6%
			CT	149	16.2%	176	16.4%	82	26.9%	57	22.7%
			CC	757	82.1%	886	82.5%	212	69.5%	188	74.9%
			missing	5	0.5%	6	0.6%	4	1.3%	2	0.8%

Table S1. Distribution of SNP genotypes in cases and controls, by race

				European-Americans				African-Americans			
				Cases (n=922)		Controls (n=1074)		Cases (n=305)		Controls (n=251)	
Gene	SNP	Major/minor allele	Genotype	n	(col %)	n	(col %)	n	(col %)	n	(col %)
	rs2249695	C/T	TT	34	3.7%	41	3.8%	28	9.2%	23	9.2%
	"tipsy" SNP		TC	292	31.7%	372	34.6%	124	40.7%	103	41.0%
			CC	595	64.5%	661	61.5%	153	50.2%	124	49.4%
			missing	1	0.1%	0	0.0%	0	0.0%	1	0.4%
	rs28969387	A/T	TT	0	0.0%	0	0.0%	0	0.0%	0	0.0%
			TA	2	0.2%	0	0.0%	23	7.5%	20	8.0%
			AA	920	99.8%	1074	100.0%	282	92.5%	231	92.0%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs11101812	T/C	CC	0	0.0%	0	0.0%	2	0.7%	1	0.4%
			CT	2	0.2%	1	0.1%	22	7.2%	18	7.2%
			TT	919	99.7%	1073	99.9%	279	91.5%	230	91.6%
			missing	1	0.1%	0	0.0%	2	0.7%	2	0.8%
OXIDATIVE STRESS METABOLISM GENES											
CAT	rs1049982	C/T	TT	95	10.3%	106	9.9%	92	30.2%	76	30.3%
			TC	396	43.0%	449	41.8%	147	48.2%	123	49.0%
			CC	429	46.5%	514	47.9%	65	21.3%	50	19.9%
			missing	2	0.2%	5	0.5%	1	0.3%	2	0.8%
GPX1	rs8179172	T/A	AA	0	0.0%	0	0.0%	0	0.0%	1	0.4%
			AT	1	0.1%	2	0.2%	50	16.4%	48	19.1%
			TT	921	99.9%	1072	99.8%	255	83.6%	202	80.5%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1800668	C/T	TT	77	8.4%	101	9.4%	15	4.9%	19	7.6%
			TC	381	41.3%	437	40.7%	115	37.7%	91	36.3%
			CC	464	50.3%	533	49.6%	174	57.0%	140	55.8%
			missing	0	0.0%	3	0.3%	1	0.3%	1	0.4%
	rs3811699	A/G	GG	79	8.6%	100	9.3%	23	7.5%	28	11.2%
			GA	379	41.1%	442	41.2%	133	43.6%	105	41.8%
			AA	464	50.3%	532	49.5%	149	48.9%	118	47.0%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs3448	C/T	TT	84	9.1%	83	7.7%	29	9.5%	17	6.8%
			TC	350	38.0%	397	37.0%	115	37.7%	96	38.2%
			CC	488	52.9%	594	55.3%	161	52.8%	138	55.0%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
GPX2	rs11623705	G/T	TT	13	1.4%	15	1.4%	0	0.0%	0	0.0%
			TG	199	21.6%	220	20.5%	15	4.9%	19	7.6%
			GG	710	77.0%	839	78.1%	290	95.1%	232	92.4%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs2412065	G/C	CC	37	4.0%	55	5.1%	48	15.7%	47	18.7%
			CG	290	31.5%	369	34.4%	154	50.5%	119	47.4%
			GG	595	64.5%	650	60.5%	103	33.8%	85	33.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs2737844	C/T	TT	76	8.2%	109	10.1%	209	68.5%	162	64.5%
			TC	361	39.2%	462	43.0%	82	26.9%	75	29.9%
			CC	481	52.2%	498	46.4%	13	4.3%	14	5.6%
			missing	4	0.4%	5	0.5%	1	0.3%	0	0.0%
GPX4	rs757229	G/C	CC	192	20.8%	233	21.7%	104	34.1%	86	34.3%
			CG	484	52.5%	522	48.6%	145	47.5%	123	49.0%
			GG	246	26.7%	318	29.6%	55	18.0%	42	16.7%
			missing	0	0.0%	1	0.1%	1	0.3%	0	0.0%
SOD1	rs11910115	A/C	CC	0	0.0%	0	0.0%	2	0.7%	5	2.0%
			CA	1	0.1%	1	0.1%	59	19.3%	59	23.5%
			AA	921	99.9%	1073	99.9%	244	80.0%	187	74.5%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs4998557	G/A	AA	12	1.3%	14	1.3%	41	13.4%	40	15.9%
			AG	205	22.2%	195	18.2%	137	44.9%	111	44.2%
			GG	704	76.4%	862	80.3%	127	41.6%	100	39.8%
			missing	1	0.1%	3	0.3%	0	0.0%	0	0.0%

Table S1. Distribution of SNP genotypes in cases and controls, by race

				European-Americans				African-Americans			
				Cases (n=922)		Controls (n=1074)		Cases (n=305)		Controls (n=251)	
Gene	SNP	Major/minor allele	Genotype	n	(col %)	n	(col %)	n	(col %)	n	(col %)
	rs10432782	T/G	GG	12	1.3%	14	1.3%	20	6.6%	20	8.0%
			GT	205	22.2%	194	18.1%	113	37.0%	101	40.2%
			TT	704	76.4%	865	80.5%	172	56.4%	130	51.8%
			missing	1	0.1%	1	0.1%	0	0.0%	0	0.0%
	rs2070424	A/G	GG	6	0.7%	5	0.5%	6	2.0%	7	2.8%
			AG	127	13.8%	113	10.5%	83	27.2%	77	30.7%
			AA	789	85.6%	956	89.0%	216	70.8%	167	66.5%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs1041740	C/T	TT	88	9.5%	101	9.4%	6	2.0%	3	1.2%
			TC	387	42.0%	473	44.0%	62	20.3%	43	17.1%
			CC	447	48.5%	500	46.6%	237	77.7%	205	81.7%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
SOD2	rs4342445	G/A	AA	57	6.2%	56	5.2%	5	1.6%	4	1.6%
			AG	340	36.9%	355	33.1%	71	23.3%	59	23.5%
			GG	525	56.9%	663	61.7%	229	75.1%	188	74.9%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs2842980	A/T	TT	42	4.6%	61	5.7%	30	9.8%	24	9.6%
			TA	299	32.4%	338	31.5%	139	45.6%	92	36.7%
			AA	581	63.0%	675	62.8%	136	44.6%	135	53.8%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs8031	T/A	AA	206	22.3%	267	24.9%	31	10.2%	35	13.9%
			AT	467	50.7%	534	49.7%	134	43.9%	107	42.6%
			TT	249	27.0%	273	25.4%	140	45.9%	109	43.4%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs5746134	C/T	TT	0	0.0%	0	0.0%	7	2.3%	3	1.2%
			TC	0	0.0%	4	0.4%	93	30.5%	58	23.1%
			CC	922	100.0%	1070	99.6%	205	67.2%	190	75.7%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	rs2758331	C/A	AA	204	22.1%	264	24.6%	18	5.9%	18	7.2%
			AC	468	50.8%	537	50.0%	113	37.0%	87	34.7%
			CC	250	27.1%	273	25.4%	174	57.0%	146	58.2%
			missing	0	0.0%	0	0.0%	0	0.0%	0	0.0%

Table S2. SNP effects on odds of developing cancer (dominant genetic model)

Gene	SNP	major/ minor alleles	Oral cavity, oropharyngeal, hypopharyngeal cancer NOS				Oropharyngeal cancer			
			n cases/controls		Adjusted OR[b] (95% CI)	p-value[c]	n cases/controls		Adjusted OR[b] (95% CI)	p-value[c]
			homozygous for major allele	one or two copies of minor allele			homozygous for major allele	one or two copies of minor allele		
ALCOHOL METABOLISM GENES										
ADH1B	rs12507573	C/A	71/386	152/935	0.94 (0.80-1.11)	1.00	91/386	241/935	1.02 (0.88-1.17)	1.00
	rs1042026	A/G	125/744	98/578	1.04 (0.89-1.22)	1.00	193/744	139/578	0.97 (0.84-1.11)	1.00
	rs7673353	C/T	204/1239	19/83	1.09 (0.79-1.50)	1.00	309/1239	23/83	0.97 (0.72-1.29)	1.00
	rs17028834	T/C	211/1265	12/57	1.05 (0.72-1.53)	1.00	312/1265	20/57	1.29 (0.94-1.77)	1.00
	rs1693457	T/C	136/860	86/461	1.13 (0.97-1.32)	1.00	223/860	109/461	1.02 (0.89-1.18)	1.00
	rs1229984	G/A	219/1243	4/79	0.60 (0.36-1.01)	1.00	322/1243	10/79	0.74 (0.52-1.06)	1.00
	rs1159918	G/T	65/468	158/854	1.16 (0.98-1.37)	1.00	109/468	223/854	1.12 (0.97-1.29)	1.00
	rs1229982	G/T	129/775	94/547	0.99 (0.84-1.16)	1.00	197/775	135/547	0.98 (0.85-1.12)	1.00
ADH1C	rs2298753	T/C	180/1117	43/205	1.18 (0.97-1.44)	1.00	270/1117	62/205	1.19 (1.00-1.41)	1.00
	rs1614972	C/T	95/585	128/737	1.02 (0.87-1.19)	1.00	141/585	191/737	1.02 (0.89-1.16)	1.00
	rs1391088	C/A	192/1119	31/203	0.98 (0.79-1.22)	1.00	280/1119	52/203	1.03 (0.86-1.24)	1.00
	rs1693482	C/T	97/585	125/735	1.03 (0.88-1.20)	1.00	145/585	186/735	1.03 (0.90-1.18)	1.00
	rs1631460	C/G	93/574	130/748	1.05 (0.90-1.23)	1.00	144/574	188/748	1.02 (0.89-1.17)	1.00
	rs11936869	C/G	111/645	112/676	0.96 (0.83-1.12)	1.00	161/645	171/676	0.99 (0.87-1.13)	1.00
ADH4	rs29001227	A/T	208/1253	15/69	1.00 (0.70-1.42)	1.00	305/1253	27/69	1.33 (0.99-1.79)	1.00
	rs1126672	C/T	131/758	92/564	1.02 (0.87-1.19)	1.00	201/758	131/564	0.96 (0.83-1.10)	1.00
	rs4699710	T/C	120/684	103/638	0.98 (0.84-1.13)	1.00	179/684	153/638	0.96 (0.84-1.10)	1.00
	rs10017466	T/C	106/632	117/690	1.00 (0.87-1.16)	1.00	157/632	174/690	1.02 (0.89-1.16)	1.00
	rs1800759	C/A	75/412	148/910	0.93 (0.79-1.10)	1.00	101/412	231/910	1.00 (0.87-1.16)	1.00
	rs1800761	G/A	134/830	89/492	1.01 (0.87-1.18)	1.00	193/830	139/492	1.07 (0.94-1.22)	1.00
	rs3762894	T/C	150/906	73/416	1.00 (0.86-1.18)	1.00	218/906	114/416	1.04 (0.91-1.20)	1.00
ADH7	rs284787	C/T	126/817	97/505	1.14 (0.98-1.33)	1.00	208/817	124/505	1.01 (0.88-1.16)	1.00
	rs894369	C/G	153/849	70/472	0.93 (0.80-1.09)	1.00	217/849	115/472	0.96 (0.84-1.10)	1.00
	rs17588403	T/A	157/887	66/435	0.92 (0.78-1.08)	1.00	230/887	102/435	0.94 (0.81-1.08)	1.00
	rs1154454	T/C	134/808	89/514	0.95 (0.81-1.11)	1.00	208/808	124/514	0.94 (0.82-1.09)	1.00
	rs1154456	T/C	108/629	115/693	0.98 (0.84-1.14)	1.00	150/629	182/693	1.08 (0.94-1.24)	1.00
	rs1154460	G/A	61/377	161/944	1.01 (0.86-1.20)	1.00	88/377	244/944	1.06 (0.91-1.23)	1.00
	rs971074	G/A	168/1027	55/295	1.07 (0.90-1.27)	1.00	257/1027	75/295	0.95 (0.81-1.12)	1.00
	rs1573496	C/G	186/1117	36/205	1.08 (0.88-1.33)	1.00	292/1117	40/205	0.84 (0.69-1.02)	1.00
ALDH2	rs4767939	A/G	135/806	88/516	0.99 (0.85-1.16)	1.00	191/806	140/516	1.08 (0.94-1.23)	1.00
	rs2238151	T/C	66/482	156/837	1.13 (0.95-1.34)	1.00	114/482	217/837	1.02 (0.88-1.18)	1.00
	rs7312055	G/A	196/1201	27/121	0.88 (0.65-1.20)	1.00	301/1201	31/121	0.83 (0.64-1.09)	1.00
	rs2158029	G/A	216/1269	7/53	0.74 (0.47-1.14)	1.00	316/1269	16/53	1.06 (0.76-1.47)	1.00
	rs16941667	C/T	189/1097	34/224	0.96 (0.78-1.18)	1.00	266/1097	66/224	1.11 (0.94-1.31)	1.00
	rs16941669	T/G	175/1084	48/236	1.14 (0.95-1.37)	1.00	272/1084	60/236	0.98 (0.83-1.16)	1.00
CYP2E1	rs3813865	G/C	204/1215	19/106	1.02 (0.77-1.36)	1.00	298/1215	34/106	1.11 (0.88-1.40)	1.00
	rs3813867	G/C	207/1237	16/84	1.02 (0.76-1.37)	1.00	316/1237	16/84	0.81 (0.60-1.09)	1.00
	rs8192772	T/C	195/1114	28/208	0.92 (0.73-1.15)	1.00	279/1114	53/208	1.07 (0.90-1.28)	1.00
	rs915908	G/A	164/1006	59/316	1.11 (0.93-1.32)	1.00	263/1006	69/316	0.89 (0.75-1.04)	1.00
	rs915909	C/T	212/1271	11/46	1.11 (0.75-1.62)	1.00	317/1271	15/46	1.02 (0.72-1.45)	1.00
	rs7092584	C/T	181/1052	42/269	0.98 (0.81-1.19)	1.00	262/1052	70/269	1.05 (0.89-1.23)	1.00
	rs743535	C/T	182/1071	41/243	0.99 (0.82-1.20)	1.00	268/1071	60/243	1.00 (0.85-1.19)	1.00
	rs2249695	C/T	108/682	115/639	1.01 (0.86-1.19)	1.00	180/682	152/639	0.90 (0.78-1.04)	1.00
	rs28969387	A/T	219/1302	4/20	1.06 (0.59-1.90)	1.00	326/1302	6/20	0.93 (0.56-1.53)	1.00
	rs11101812	T/C	219/1300	3/20	0.98 (0.52-1.85)	1.00	327/1300	4/20	0.92 (0.52-1.63)	1.00

Gene	SNP	major/ minor alleles	Oral cavity, oropharyngeal, hypopharyngeal cancer NOS				Oropharyngeal cancer			
			n cases/controls				n cases/controls			
			homozygous for major allele	one or two copies of minor allele	Adjusted OR[b] (95% CI)	p-value[c]	homozygous for major allele	one or two copies of minor allele	Adjusted OR[b] (95% CI)	p-value[c]
OXIDATIVE STRESS METABOLISM GENES										
CAT	rs1049982	C/T	100/589	123/726	0.97 (0.831.13)	1.00	134/589	197/726	1.07 (0.94-1.22)	1.00
GPX1	rs8179172	T/A	212/1271	11/51	0.97 (0.661.44)	1.00	320/1271	12/51	0.90 (0.62-1.29)	1.00
	rs1800668	C/T	113/672	110/646	1.06 (0.911.23)	1.00	172/672	160/646	1.02 (0.89-1.16)	1.00
	rs3811699	A/G	109/649	114/673	1.06 (0.911.23)	1.00	167/649	165/673	1.01 (0.89-1.15)	1.00
	rs3448	C/T	113/729	110/593	1.12 (0.971.31)	1.00	190/729	142/593	0.98 (0.86-1.12)	1.00
GPX2	rs11623705	G/T	185/1069	38/253	0.94 (0.771.14)	1.00	268/1069	64/253	1.02 (0.86-1.21)	1.00
	rs2412065	G/C	122/733	101/589	0.98 (0.841.15)	1.00	193/733	139/589	0.94 (0.82-1.08)	1.00
	rs2737844	C/T	88/511	134/806	0.95 (0.811.12)	1.00	136/511	194/806	0.93 (0.81-1.08)	1.00
GPX4	rs757229	G/C	60/358	162/963	0.98 (0.831.16)	1.00	85/358	247/963	1.02 (0.88-1.18)	1.00
SOD1	rs11910115	A/C	208/1257	15/65	1.01 (0.701.45)	1.00	319/1257	13/65	0.86 (0.60-1.22)	1.00
	rs4998557	G/A	155/959	68/360	1.00 (0.841.20)	1.00	232/959	99/360	1.07 (0.92-1.25)	1.00
	rs10432782	T/G	163/992	60/329	0.98 (0.821.17)	1.00	240/992	91/329	1.07 (0.92-1.25)	1.00
	rs2070424	A/G	187/1120	36/202	0.95 (0.761.17)	1.00	274/1120	58/202	1.05 (0.88-1.26)	1.00
	rs1041740	C/T	127/705	96/617	0.94 (0.801.10)	1.00	174/705	158/617	0.99 (0.87-1.14)	1.00
SOD2	rs4342445	G/A	145/850	78/472	1.01 (0.861.18)	1.00	202/850	130/472	1.08 (0.95-1.24)	1.00
	rs2842980	A/T	129/807	94/515	1.06 (0.911.23)	1.00	189/807	143/515	1.09 (0.96-1.25)	1.00
	rs8031	T/A	77/382	146/940	0.91 (0.771.07)	1.00	102/382	230/940	0.99 (0.86-1.14)	1.00
	rs5746134	C/T	207/1257	16/65	1.20 (0.851.68)	1.00	304/1257	28/65	1.41 (1.05-1.89)	1.00
	rs2758331	C/A	86/419	137/903	0.90 (0.771.06)	1.00	108/419	224/903	1.02 (0.88-1.17)	1.00

[a] Cases and controls do not sum to 1227 and 1325, respectively, because 4 cases and 3 controls are missing information on duration of cigarette smoking, and because a few subjects lack genotype information for some SNPs

[b] Conditional logistic regression models for estimating main effect of each SNP were conditioned on sex, race, and age category, and adjusted for continuous duration of smoking in years (rounded to whole years). Odds ratios are for those with one or more copies of the minor allele versus the referent group of those homozygous for the major allele (dominant genetic model).

[c] Bonferroni-corrected for 64 statistical tests

Table S3. Haplotype effects on risk of developing SCCHN (additive genetic model)

European-Americans

Gene	Haplotype definition[a]				Haplotype frequency	OR (95% CI)[b]	Bonferroni-adjusted p-value (13 tests)
ADH1B	rs12507573	rs1042026	rs1693457				
	A	A	T		0.459	1.00 (ref)	
	C	A	C		0.183	1.17 (0.96 - 1.42)	1.00
	C	A	T		0.069	1.09 (0.83 - 1.44)	1.00
	C	G	T		0.287	1.05 (0.89 - 1.23)	1.00
	*	*	*		0.002	0.30 (0.06 - 1.55)	1.00
ADH1C	Haplotype 1:						
	rs2298753	rs1614972					
	T	C			0.597	1.00 (ref)	
	C	C			0.106	1.24 (0.99 - 1.55)	0.76
	T	T			0.297	1.06 (0.91 - 1.23)	1.00
	Haplotype 2:						
	rs1693482	rs1631460	rs11936869				
	T	G	C		0.400	1.00 (ref)	
	C	C	C		0.333	0.94 (0.80 - 1.10)	1.00
	C	C	G		0.263	1.00 (0.84 - 1.19)	1.00
	C	G	C		0.004	0.99 (0.33 - 2.94)	1.00
ADH4	Haplotype 1:						
	rs1126672	rs4699710	rs10017466	rs1800759			
	C	T	T	C	0.617	1.00 (ref)	
	C	C	C	A	0.029	1.32 (0.88 - 1.99)	1.00
	C	T	T	A	0.078	0.93 (0.72 - 1.22)	1.00
	T	C	C	A	0.273	0.96 (0.81 - 1.12)	1.00
	*	*	*	*	0.002	2.21 (0.61 - 7.97)	1.00
	Haplotype 2:						
	rs1800761	rs3762894					
	G	T			0.810	1.00 (ref)	
	A	C			0.160	1.02 (0.84 - 1.23)	1.00
	A	T			0.029	1.38 (0.91 - 2.07)	1.00
ADH7	Haplotype 1:						
	rs284787	rs894369	rs17588403				
	C	C	T		0.371	1.00 (ref)	
	C	C	A		0.192	1.03 (0.85 - 1.25)	1.00
	C	G	T		0.196	0.88 (0.73 - 1.06)	1.00
	T	C	T		0.241	1.13 (0.95 - 1.35)	1.00
	Haplotype 2:						
	rs1154456	rs1154460	rs971074	rs1573496			
	T	G	G	C	0.539	1.00 (ref)	
	C	A	G	C	0.353	1.08 (0.93 - 1.25)	1.00
	T	A	A	C	0.010	0.93 (0.47 - 1.84)	1.00
	T	A	A	G	0.092	0.98 (0.76 - 1.25)	1.00
	T	A	G	C	0.003	2.78 (0.90 - 8.63)	1.00
	*	*	*	*	0.002	0.97 (0.12 - 8.06)	1.00
ALDH2	rs4767939	rs2238151	rs16941667	rs16941669			
	A	T	C	T	0.650	1.00 (ref)	
	A	C	C	G	0.102	1.12 (0.89 - 1.41)	1.00
	A	C	C	T	0.057	1.18 (0.88 - 1.60)	1.00
	G	C	C	T	0.106	1.13 (0.90 - 1.42)	1.00
	G	C	T	T	0.083	1.22 (0.95 - 1.58)	1.00
CYP2E1	rs915908	rs7092584	rs743535	rs2249695			
	G	C	C	C	0.653	1.00 (ref)	
	A	C	C	C	0.144	0.88 (0.72 - 1.07)	1.00
	G	C	C	T	0.102	0.73 (0.58 - 0.92)	0.11
	G	T	C	T	0.010	0.80 (0.40 - 1.61)	1.00
	G	T	T	T	0.089	1.03 (0.81 - 1.32)	1.00
GPX1	rs1800668	rs3811699	rs3448				
	C	A	C		0.434	1.00 (ref)	
	C	A	T		0.271	1.05 (0.90 - 1.24)	1.00
	T	G	C		0.294	1.02 (0.87 - 1.20)	1.00
GPX2	rs11623705	rs2412065	rs2737844				
	G	G	C		0.700	1.00 (ref)	
	G	C	T		0.092	0.69 (0.54 - 0.88)	0.04
	G	G	T		0.090	0.81 (0.63 - 1.03)	1.00
	T	C	T		0.119	0.98 (0.79 - 1.21)	1.00
SOD1	rs4998557	rs10432782	rs2070424	rs1041740			
	G	T	A	C	0.576	1.00 (ref)	
	A	G	A	C	0.048	1.10 (0.79 - 1.52)	1.00
	A	G	G	C	0.065	1.42 (1.07 - 1.88)	0.18
	G	T	A	T	0.311	0.98 (0.84 - 1.14)	1.00

African-Americans

Gene	Haplotype definition[a]					Haplotype frequency	OR (95% CI)[b]	Bonferroni-adjusted p-value (12 tests)
ADH1B	Haplotype 1:							
	rs12507573	rs1042026						
	C	A				0.483	1.00 (ref)	
	A	A				0.422	1.02 (0.75 - 1.39)	1.00
	C	G				0.096	0.80 (0.49 - 1.32)	1.00
	Haplotype 2:							
	rs7673353	rs17028834	rs1693457	rs1159918				
	C	T	T	G		0.271	1.00 (ref)	
	C	C	T	T		0.130	1.84 (1.09 - 3.11)	0.28
	C	T	C	T		0.202	0.79 (0.52 - 1.22)	1.00
	C	T	T	T		0.224	1.21 (0.80 - 1.83)	1.00
	T	T	T	T		0.173	1.06 (0.67 - 1.66)	1.00
ADH1C	rs1614972	rs1391088	rs1693482	rs1631460	rs11936869			
	T	C	C	C	G	0.427	1.00 (ref)	
	C	A	C	C	C	0.080	1.45 (0.80 - 2.62)	1.00
	C	C	C	C	C	0.264	1.05 (0.74 - 1.51)	1.00
	C	C	T	G	C	0.160	1.40 (0.88 - 2.21)	1.00
	T	C	C	C	C	0.059	1.29 (0.65 - 2.56)	1.00
	*	*	*	*	*	0.010	7.60 (0.99 - 58.20)	0.62
ADH4	Haplotype 1:							
	rs29001227	rs1126672	rs4699710	rs10017466	rs1800759			
	A	C	T	T	A	0.408	1.00 (ref)	
	A	C	C	C	A	0.074	0.94 (0.51 - 1.72)	1.00
	A	C	T	T	C	0.242	1.03 (0.70 - 1.50)	1.00
	A	T	C	C	A	0.110	1.50 (0.89 - 2.51)	1.00
	T	C	T	C	A	0.164	1.61 (1.04 - 2.49)	0.42
	Haplotype 2:							
	rs1800761	rs3762894						
	G	T				0.711	1.00 (ref)	
	A	C				0.210	0.92 (0.65 - 1.31)	1.00
	A	T				0.078	0.97 (0.55 - 1.70)	1.00
ADH7	Haplotype 1:							
	rs284787	rs894369	rs17588403					
	C	C	T			0.578	1.00 (ref)	
	C	C	A			0.124	0.73 (0.46 - 1.18)	1.00
	C	G	T			0.154	0.90 (0.59 - 1.38)	1.00
	T	C	T			0.143	0.85 (0.55 - 1.32)	1.00
	Haplotype 2:							
	rs1154456	rs1154460	rs971074					
	T	G	G			0.508	1.00 (ref)	
	C	A	G			0.163	0.96 (0.63 - 1.48)	1.00
	T	A	A			0.177	1.18 (0.77 - 1.81)	1.00
	T	A	G			0.150	0.97 (0.63 - 1.48)	1.00
ALDH2	rs4767939	rs2238151	rs7312055	rs2158029	rs16941667	rs16941669		
	A	C	A	G	C	T	0.263	1.00 (ref)	
	A	C	G	G	C	G	0.081	1.50 (0.79 - 2.83)	1.00
	A	C	G	G	C	T	0.141	1.06 (0.65 - 1.73)	1.00
	A	T	G	G	C	T	0.111	0.48 (0.28 - 0.83)	0.11
	G	C	G	A	C	T	0.090	1.02 (0.57 - 1.85)	1.00
	G	C	G	G	C	T	0.177	1.05 (0.67 - 1.67)	1.00
	G	C	G	G	T	T	0.137	1.23 (0.75 - 2.02)	1.00
GPX1	rs1800668	rs3811699	rs3448					
	C	A	C			0.422	1.00 (ref)	
	C	A	T			0.271	1.14 (0.79 - 1.65)	1.00
	C	G	C			0.060	0.87 (0.46 - 1.67)	1.00
	T	G	C			0.247	1.04 (0.72 - 1.52)	1.00
GPX2	rs2412065	rs2737844						
	C	T				0.417	1.00 (ref)	
	G	C				0.190	0.84 (0.56 - 1.25)	1.00
	G	T				0.393	1.07 (0.77 - 1.49)	1.00
SOD1	rs4998557	rs10432782	rs2070424	rs1041740				
	G	T	A	C		0.521	1.00 (ref)	
	A	G	A	C		0.097	1.00 (0.59 - 1.71)	1.00
	A	G	G	C		0.167	0.56 (0.37 - 0.86)	0.09
	A	T	A	C		0.104	1.13 (0.68 - 1.90)	1.00
	G	T	A	T		0.111	1.15 (0.69 - 1.90)	1.00

Table S3. Haplotype effects on risk of developing SCCHN (additive genetic model)

European-Americans

Gene	Haplotype definition[a]				Haplotype frequency	OR (95% CI)[b]	Bonferroni-adjusted p-value (13 tests)
SOD2	rs4342445	rs2842980	rs8031	rs2758331			
	G	A	A	A	0.486	1.00 (ref)	
	A	A	T	C	0.230	1.18 (1.00 - 1.40)	0.71
	G	A	T	C	0.071	0.96 (0.73 - 1.27)	1.00
	G	T	T	C	0.211	1.00 (0.84 - 1.20)	1.00
	*	*	*	*	0.002	3.01 (0.50 - 18.03)	1.00

African-Americans

Gene	Haplotype definition[a]					Haplotype frequency	OR (95% CI)[b]	Bonferroni-adjusted p-value (12 tests)
SOD2	rs4342445	rs2842980	rs8031	rs5746134	rs2758331			
	G	A	A	C	A	0.245	1.00 (ref)	
	A	A	T	C	C	0.133	1.00 (0.59 - 1.68)	1.00
	G	A	A	C	C	0.091	0.68 (0.39 - 1.20)	1.00
	G	A	T	C	C	0.227	0.65 (0.41 - 1.02)	0.74
	G	T	T	C	C	0.151	0.91 (0.56 - 1.47)	1.00
	G	T	T	T	C	0.154	1.46 (0.89 - 2.40)	1.00

[a] * indicates all remaining allele combinations

[b] Odds ratios for main effects of each haplotype were calculated from unconditional logistic regression models, adjusted for smoking duration in whole years, and matching variables sex, age category, sex*age category.

Table S4. Odds ratios for developing SCCHN for SNP genotypes, at varying levels of lifetime alcohol consumption

Gene	SNP	major/ minor alleles	lifetime ethanol consumption (ml)	Odds ratios in comparison to common referent group[a]: homozygous major allele — n (cases/ controls)[b]	Odds ratios in comparison to common referent group[a]: homozygous major allele — Adjusted odds ratio[c] (95% CI)	Odds ratios in comparison to common referent group[a]: at least one minor allele — n (cases/ controls)[b]	Odds ratios in comparison to common referent group[a]: at least one minor allele — Adjusted odds ratio[c] (95% CI)	Assessment of additive interaction between SNP and lifetime alcohol consumption — ICR[d] (**bold** if statistically significant after Bonferroni correction)
ALCOHOL METABOLISM GENES								
ADH1B	rs12507573	C/A	never drinkers	40 / 72	1.00 (ref)	77 / 208	0.64 (0.39 - 1.06)	-0.19
			>0 to <134,699	68 / 142	0.62 (0.37 - 1.05)	141 / 323	0.52 (0.32 - 0.85)	
			134,699 to <757,550	84 / 118	0.74 (0.44 - 1.27)	234 / 242	1.05 (0.65 - 1.69)	
			757,550+	160 / 47	2.75 (1.56 - 4.86)	345 / 126	2.21 (1.34 - 3.65)	
	rs1042026	A/G	never drinkers	59 / 157	1.00 (ref)	58 / 123	1.20 (0.75 - 1.93)	-0.75
			>0 to <134,699	112 / 253	0.80 (0.53 - 1.20)	97 / 213	0.85 (0.56 - 1.30)	
			134,699 to <757,550	188 / 206	1.48 (0.99 - 2.22)	130 / 154	1.31 (0.86 - 2.01)	
			757,550+	312 / 98	3.75 (2.42 - 5.81)	193 / 75	3.20 (2.02 - 5.08)	
	rs7673353	C/T	never drinkers	115 / 261	1.00 (ref)	2 / 19	0.29 (0.06 - 1.35)	1.06
			>0 to <134,699	199 / 438	0.72 (0.53 - 0.98)	10 / 28	0.71 (0.31 - 1.62)	
			134,699 to <757,550	289 / 346	1.17 (0.85 - 1.60)	29 / 14	3.14 (1.44 - 6.84)	
			757,550+	453 / 159	3.10 (2.19 - 4.39)	52 / 14	3.44 (1.66 - 7.15)	
	rs17028834	T/C	never drinkers	113 / 272	1.00 (ref)	4 / 8	1.13 (0.28 - 4.49)	3.55
			>0 to <134,699	201 / 447	0.75 (0.55 - 1.01)	8 / 19	1.01 (0.40 - 2.54)	
			134,699 to <757,550	303 / 342	1.29 (0.95 - 1.77)	15 / 18	1.39 (0.61 - 3.16)	
			757,550+	453 / 163	3.06 (2.16 - 4.32)	52 / 10	6.73 (3.06 - 14.81)	
	rs1693457	T/C	never drinkers	78 / 177	1.00 (ref)	38 / 103	0.86 (0.52 - 1.41)	1.02
			>0 to <134,699	146 / 295	0.77 (0.54 - 1.11)	63 / 170	0.64 (0.42 - 0.98)	
			134,699 to <757,550	201 / 234	1.21 (0.84 - 1.75)	117 / 126	1.31 (0.87 - 1.98)	
			757,550+	327 / 122	2.85 (1.92 - 4.24)	178 / 51	3.72 (2.34 - 5.93)	
	rs1229984	G/A	never drinkers	109 / 268	1.00 (ref)	8 / 12	1.60 (0.59 - 4.32)	-1.85
			>0 to <134,699	206 / 427	0.83 (0.61 - 1.13)	3 / 39	0.15 (0.04 - 0.50)	
			134,699 to <757,550	305 / 339	1.35 (0.98 - 1.85)	13 / 21	1.07 (0.48 - 2.37)	
			757,550+	499 / 169	3.36 (2.38 - 4.75)	6 / 4	2.11 (0.49 - 9.10)	
	rs1159918	G/T	never drinkers	49 / 101	1.00 (ref)	68 / 179	0.90 (0.55 - 1.46)	1.03
			>0 to <134,699	80 / 168	0.67 (0.41 - 1.07)	129 / 298	0.73 (0.47 - 1.14)	
			134,699 to <757,550	107 / 129	1.11 (0.68 - 1.80)	211 / 231	1.26 (0.81 - 1.97)	
			757,550+	140 / 58	2.42 (1.43 - 4.08)	365 / 115	3.34 (2.08 - 5.36)	
	rs1229982	G/T	never drinkers	72 / 168	1.00 (ref)	45 / 112	0.91 (0.56 - 1.47)	0.52
			>0 to <134,699	131 / 270	0.79 (0.54 - 1.16)	78 / 196	0.64 (0.42 - 0.97)	
			134,699 to <757,550	180 / 211	1.21 (0.83 - 1.79)	138 / 149	1.28 (0.85 - 1.93)	
			757,550+	274 / 98	2.91 (1.91 - 4.43)	231 / 75	3.34 (2.14 - 5.21)	
ADH1C	rs2298753	T/C	never drinkers	97 / 238	1.00 (ref)	20 / 42	1.19 (0.63 - 2.27)	-0.56
			>0 to <134,699	169 / 392	0.74 (0.53 - 1.03)	40 / 74	0.96 (0.59 - 1.57)	
			134,699 to <757,550	246 / 303	1.22 (0.87 - 1.71)	72 / 57	1.84 (1.16 - 2.93)	
			757,550+	429 / 144	3.34 (2.32 - 4.81)	76 / 29	2.97 (1.71 - 5.16)	
	rs1614972	C/T	never drinkers	56 / 123	1.00 (ref)	61 / 157	0.84 (0.53 - 1.34)	0.02
			>0 to <134,699	81 / 219	0.52 (0.33 - 0.82)	128 / 247	0.84 (0.55 - 1.28)	
			134,699 to <757,550	155 / 152	1.33 (0.86 - 2.06)	163 / 208	1.05 (0.68 - 1.61)	
			757,550+	216 / 75	2.99 (1.86 - 4.79)	289 / 98	2.85 (1.80 - 4.50)	
	rs1391088	C/A	never drinkers	100 / 235	1.00 (ref)	17 / 45	0.95 (0.50 - 1.82)	0.12
			>0 to <134,699	181 / 392	0.76 (0.55 - 1.06)	28 / 74	0.66 (0.39 - 1.12)	
			134,699 to <757,550	270 / 315	1.24 (0.89 - 1.72)	48 / 45	1.59 (0.95 - 2.67)	
			757,550+	427 / 145	3.18 (2.21 - 4.57)	78 / 28	3.24 (1.87 - 5.62)	
	rs1693482	C/T	never drinkers	44 / 123	1.00 (ref)	73 / 157	1.24 (0.77 - 2.01)	-0.24
			>0 to <134,699	84 / 199	0.87 (0.54 - 1.38)	124 / 265	0.85 (0.55 - 1.33)	
			134,699 to <757,550	135 / 164	1.37 (0.86 - 2.18)	182 / 196	1.54 (0.98 - 2.41)	
			757,550+	234 / 77	3.64 (2.22 - 5.96)	271 / 96	3.65 (2.26 - 5.88)	
	rs1631460	C/G	never drinkers	43 / 119	1.00 (ref)	74 / 161	1.23 (0.76 - 1.99)	-0.17
			>0 to <134,699	81 / 195	0.86 (0.53 - 1.37)	128 / 271	0.86 (0.55 - 1.34)	
			134,699 to <757,550	134 / 162	1.38 (0.87 - 2.22)	184 / 198	1.53 (0.97 - 2.41)	
			757,550+	231 / 76	3.61 (2.19 - 5.93)	273 / 97	3.66 (2.26 - 5.93)	
	rs11936869	C/G	never drinkers	61 / 135	1.00 (ref)	56 / 145	0.90 (0.56 - 1.43)	-0.17
			>0 to <134,699	102 / 237	0.64 (0.42 - 0.98)	107 / 228	0.79 (0.52 - 1.20)	
			134,699 to <757,550	170 / 174	1.37 (0.90 - 2.08)	148 / 186	1.08 (0.71 - 1.65)	
			757,550+	242 / 78	3.17 (2.00 - 5.02)	263 / 95	2.90 (1.85 - 4.54)	

Table S4. Odds ratios for developing SCCHN for SNP genotypes, at varying levels of lifetime alcohol consumption

Gene	SNP	major/ minor alleles	lifetime ethanol consumption (ml)	Odds ratios in comparison to common referent group[a]: homozygous major allele — n (cases/ controls)[b]	Adjusted odds ratio[c] (95% CI)	at least one minor allele — n (cases/ controls)[b]	Adjusted odds ratio[c] (95% CI)	Assessment of additive interaction between SNP and lifetime alcohol consumption: ICR[d] (**bold** if statistically significant after Bonferroni correction)
ADH4	rs29001227	A/T	never drinkers	113 / 271	1.00 (ref)	4 / 9	1.04 (0.27 - 4.02)	4.55
			>0 to <134,699	199 / 445	0.74 (0.55 - 1.01)	10 / 21	0.98 (0.41 - 2.31)	
			134,699 to <757,550	294 / 334	1.28 (0.94 - 1.76)	24 / 26	1.47 (0.74 - 2.93)	
			757,550+	445 / 163	3.02 (2.13 - 4.27)	60 / 10	7.61 (3.46 - 16.75)	
	rs1126672	C/T	never drinkers	58 / 152	1.00 (ref)	59 / 128	1.19 (0.74 - 1.92)	-0.14
			>0 to <134,699	120 / 263	0.84 (0.56 - 1.27)	89 / 203	0.79 (0.51 - 1.22)	
			134,699 to <757,550	186 / 214	1.37 (0.91 - 2.06)	132 / 146	1.46 (0.95 - 2.24)	
			757,550+	310 / 107	3.47 (2.24 - 5.37)	195 / 66	3.53 (2.21 - 5.63)	
	rs4699710	T/C	never drinkers	49 / 142	1.00 (ref)	68 / 138	1.45 (0.90 - 2.32)	0.09
			>0 to <134,699	108 / 239	0.93 (0.61 - 1.44)	101 / 227	0.91 (0.58 - 1.41)	
			134,699 to <757,550	172 / 183	1.70 (1.10 - 2.63)	146 / 177	1.45 (0.93 - 2.24)	
			757,550+	272 / 100	3.69 (2.33 - 5.85)	233 / 73	4.23 (2.63 - 6.80)	
	rs10017466	T/C	never drinkers	45 / 134	1.00 (ref)	72 / 146	1.46 (0.91 - 2.35)	1.08
			>0 to <134,699	100 / 224	0.93 (0.60 - 1.46)	109 / 242	0.93 (0.60 - 1.45)	
			134,699 to <757,550	154 / 163	1.73 (1.11 - 2.72)	164 / 197	1.49 (0.96 - 2.31)	
			757,550+	223 / 93	3.26 (2.03 - 5.24)	281 / 80	4.80 (2.98 - 7.72)	
	rs1800759	C/A	never drinkers	35 / 93	1.00 (ref)	82 / 187	1.17 (0.70 - 1.95)	0.66
			>0 to <134,699	70 / 153	0.80 (0.47 - 1.36)	139 / 313	0.86 (0.53 - 1.39)	
			134,699 to <757,550	101 / 104	1.61 (0.95 - 2.73)	217 / 256	1.37 (0.85 - 2.22)	
			757,550+	132 / 55	3.02 (1.72 - 5.31)	373 / 118	3.85 (2.32 - 6.41)	
	rs1800761	G/A	never drinkers	68 / 167	1.00 (ref)	49 / 113	1.13 (0.70 - 1.81)	-0.63
			>0 to <134,699	121 / 300	0.70 (0.48 - 1.04)	88 / 166	0.95 (0.63 - 1.44)	
			134,699 to <757,550	208 / 235	1.39 (0.95 - 2.04)	110 / 125	1.29 (0.84 - 1.98)	
			757,550+	310 / 101	3.57 (2.35 - 5.45)	195 / 72	3.07 (1.95 - 4.83)	
	rs3762894	T/C	never drinkers	82 / 178	1.00 (ref)	35 / 102	0.75 (0.45 - 1.23)	-0.74
			>0 to <134,699	135 / 328	0.62 (0.43 - 0.89)	74 / 138	0.83 (0.55 - 1.27)	
			134,699 to <757,550	226 / 263	1.15 (0.80 - 1.65)	92 / 97	1.22 (0.79 - 1.88)	
			757,550+	348 / 108	3.28 (2.19 - 4.89)	157 / 65	2.29 (1.45 - 3.60)	
ADH7	rs284787	C/T	never drinkers	67 / 166	1.00 (ref)	50 / 114	1.05 (0.65 - 1.68)	0.45
			>0 to <134,699	127 / 299	0.74 (0.50 - 1.08)	82 / 167	0.83 (0.54 - 1.27)	
			134,699 to <757,550	195 / 210	1.36 (0.92 - 2.01)	123 / 150	1.26 (0.83 - 1.92)	
			757,550+	308 / 112	3.11 (2.05 - 4.72)	197 / 61	3.61 (2.26 - 5.74)	
	rs894369	C/G	never drinkers	84 / 181	1.00 (ref)	33 / 99	0.71 (0.42 - 1.17)	0.80
			>0 to <134,699	140 / 303	0.70 (0.48 - 1.00)	69 / 162	0.63 (0.42 - 0.96)	
			134,699 to <757,550	207 / 214	1.26 (0.87 - 1.83)	111 / 146	1.00 (0.67 - 1.50)	
			757,550+	350 / 125	2.75 (1.85 - 4.07)	155 / 48	3.25 (2.02 - 5.22)	
	rs17588403	T/A	never drinkers	71 / 190	1.00 (ref)	46 / 90	1.35 (0.83 - 2.19)	-1.33
			>0 to <134,699	142 / 307	0.87 (0.60 - 1.25)	67 / 159	0.78 (0.51 - 1.21)	
			134,699 to <757,550	226 / 251	1.49 (1.03 - 2.16)	92 / 109	1.32 (0.85 - 2.05)	
			757,550+	347 / 108	3.96 (2.63 - 5.96)	158 / 65	2.97 (1.88 - 4.69)	
	rs1154454	T/C	never drinkers	76 / 175	1.00 (ref)	41 / 105	0.85 (0.52 - 1.39)	0.13
			>0 to <134,699	143 / 276	0.82 (0.57 - 1.19)	66 / 190	0.55 (0.36 - 0.84)	
			134,699 to <757,550	191 / 227	1.16 (0.80 - 1.70)	127 / 133	1.31 (0.86 - 1.98)	
			757,550+	306 / 106	3.04 (2.02 - 4.58)	199 / 67	3.02 (1.91 - 4.77)	
	rs1154456	T/C	never drinkers	54 / 125	1.00 (ref)	63 / 155	0.77 (0.48 - 1.22)	-0.03
			>0 to <134,699	91 / 218	0.62 (0.40 - 0.96)	118 / 248	0.68 (0.44 - 1.04)	
			134,699 to <757,550	149 / 181	1.03 (0.67 - 1.59)	169 / 179	1.20 (0.78 - 1.85)	
			757,550+	256 / 81	2.91 (1.82 - 4.65)	249 / 92	2.65 (1.67 - 4.20)	
	rs1154460	G/A	never drinkers	35 / 65	1.00 (ref)	81 / 215	0.63 (0.37 - 1.07)	0.92
			>0 to <134,699	57 / 131	0.53 (0.30 - 0.92)	152 / 334	0.55 (0.34 - 0.90)	
			134,699 to <757,550	88 / 111	0.83 (0.48 - 1.45)	229 / 249	0.97 (0.59 - 1.60)	
			757,550+	133 / 54	1.93 (1.07 - 3.46)	371 / 119	2.48 (1.47 - 4.20)	
	rs971074	G/A	never drinkers	91 / 219	1.00 (ref)	26 / 61	1.15 (0.65 - 2.03)	0.86
			>0 to <134,699	166 / 357	0.79 (0.56 - 1.11)	43 / 109	0.73 (0.46 - 1.17)	
			134,699 to <757,550	247 / 275	1.34 (0.95 - 1.89)	71 / 85	1.31 (0.84 - 2.05)	
			757,550+	380 / 140	3.13 (2.15 - 4.55)	125 / 33	4.14 (2.47 - 6.94)	
	rs1573496	C/G	never drinkers	98 / 236	1.00 (ref)	19 / 44	1.08 (0.57 - 2.05)	0.46
			>0 to <134,699	175 / 386	0.76 (0.55 - 1.06)	34 / 80	0.76 (0.46 - 1.27)	
			134,699 to <757,550	272 / 301	1.31 (0.94 - 1.83)	46 / 59	1.29 (0.78 - 2.13)	
			757,550+	446 / 155	3.20 (2.23 - 4.59)	58 / 18	3.73 (1.98 - 7.05)	

Table S4. Odds ratios for developing SCCHN for SNP genotypes, at varying levels of lifetime alcohol consumption

Gene	SNP	major/ minor alleles	lifetime ethanol consumption (ml)	Odds ratios in comparison to common referent group[a]: homozygous major allele — n (cases/ controls)[b]	Odds ratios in comparison to common referent group[a]: homozygous major allele — Adjusted odds ratio[c] (95% CI)	Odds ratios in comparison to common referent group[a]: at least one minor allele — n (cases/ controls)[b]	Odds ratios in comparison to common referent group[a]: at least one minor allele — Adjusted odds ratio[c] (95% CI)	Assessment of additive interaction between SNP and lifetime alcohol consumption — ICR[d] (**bold** if statistically significant after Bonferroni correction)
ALDH2	rs4767939	A/G	never drinkers	76 / 174	1.00 (ref)	41 / 106	0.88 (0.54 - 1.44)	1.09
			>0 to <134,699	120 / 289	0.65 (0.44 - 0.94)	89 / 177	0.84 (0.56 - 1.27)	
			134,699 to <757,550	194 / 218	1.21 (0.83 - 1.77)	124 / 142	1.28 (0.85 - 1.93)	
			757,550+	261 / 103	2.69 (1.78 - 4.07)	243 / 70	3.66 (2.35 - 5.71)	
	rs2238151	T/C	never drinkers	50 / 95	1.00 (ref)	67 / 184	0.70 (0.43 - 1.14)	**1.91**
			>0 to <134,699	75 / 173	0.54 (0.34 - 0.88)	133 / 293	0.64 (0.41 - 0.99)	
			134,699 to <757,550	97 / 138	0.81 (0.50 - 1.31)	220 / 222	1.19 (0.76 - 1.86)	
			757,550+	122 / 65	1.66 (0.99 - 2.80)	381 / 106	3.27 (2.02 - 5.28)	
	rs7312055	G/A	never drinkers	111 / 254	1.00 (ref)	6 / 26	0.41 (0.15 - 1.12)	0.97
			>0 to <134,699	201 / 427	0.74 (0.54 - 1.01)	8 / 39	0.32 (0.13 - 0.78)	
			134,699 to <757,550	282 / 328	1.19 (0.87 - 1.64)	36 / 32	1.30 (0.69 - 2.46)	
			757,550+	422 / 152	2.93 (2.06 - 4.17)	83 / 21	3.31 (1.76 - 6.23)	
	rs2158029	G/A	never drinkers	116 / 270	1.00 (ref)	1 / 10	0.28 (0.03 - 2.30)	2.73
			>0 to <134,699	207 / 443	0.77 (0.57 - 1.04)	2 / 23	0.13 (0.03 - 0.60)	
			134,699 to <757,550	302 / 349	1.25 (0.91 - 1.70)	16 / 11	1.79 (0.72 - 4.45)	
			757,550+	470 / 166	3.09 (2.19 - 4.35)	35 / 7	5.10 (2.04 - 12.73)	
	rs16941667	C/T	never drinkers	98 / 233	1.00 (ref)	19 / 47	1.06 (0.57 - 1.99)	0.99
			>0 to <134,699	163 / 390	0.70 (0.50 - 0.98)	46 / 75	1.11 (0.69 - 1.79)	
			134,699 to <757,550	259 / 294	1.29 (0.92 - 1.80)	59 / 66	1.42 (0.89 - 2.29)	
			757,550+	405 / 148	3.12 (2.17 - 4.49)	100 / 25	4.17 (2.39 - 7.28)	
	rs16941669	T/G	never drinkers	97 / 218	1.00 (ref)	20 / 61	0.74 (0.41 - 1.34)	1.45
			>0 to <134,699	162 / 380	0.67 (0.48 - 0.94)	47 / 86	0.88 (0.55 - 1.39)	
			134,699 to <757,550	254 / 302	1.17 (0.84 - 1.64)	64 / 58	1.46 (0.90 - 2.35)	
			757,550+	415 / 149	2.90 (2.01 - 4.18)	90 / 23	4.09 (2.30 - 7.26)	
CYP2E1	rs3813865	G/C	never drinkers	108 / 259	1.00 (ref)	9 / 20	1.24 (0.51 - 3.00)	1.95
			>0 to <134,699	196 / 432	0.76 (0.56 - 1.04)	13 / 34	0.75 (0.37 - 1.54)	
			134,699 to <757,550	289 / 324	1.32 (0.96 - 1.82)	29 / 36	1.27 (0.69 - 2.31)	
			757,550+	437 / 160	3.11 (2.19 - 4.42)	68 / 13	5.31 (2.65 - 10.65)	
	rs3813867	G/C	never drinkers	110 / 263	1.00 (ref)	7 / 16	0.94 (0.35 - 2.47)	3.88
			>0 to <134,699	197 / 441	0.74 (0.54 - 1.01)	12 / 25	0.80 (0.37 - 1.76)	
			134,699 to <757,550	301 / 329	1.35 (0.98 - 1.85)	17 / 31	0.65 (0.33 - 1.28)	
			757,550+	460 / 165	3.00 (2.11 - 4.25)	44 / 8	6.82 (2.90 - 16.02)	
	rs8192772	T/C	never drinkers	99 / 237	1.00 (ref)	18 / 43	1.07 (0.55 - 2.05)	1.89
			>0 to <134,699	179 / 394	0.75 (0.54 - 1.03)	30 / 72	0.84 (0.50 - 1.41)	
			134,699 to <757,550	264 / 294	1.30 (0.94 - 1.81)	53 / 66	1.29 (0.80 - 2.08)	
			757,550+	413 / 152	3.02 (2.11 - 4.33)	92 / 21	4.97 (2.78 - 8.91)	
	rs915908	G/A	never drinkers	93 / 216	1.00 (ref)	24 / 64	1.04 (0.59 - 1.85)	-1.29
			>0 to <134,699	152 / 352	0.74 (0.53 - 1.04)	57 / 114	0.80 (0.52 - 1.24)	
			134,699 to <757,550	254 / 277	1.35 (0.96 - 1.91)	64 / 83	1.12 (0.71 - 1.77)	
			757,550+	417 / 131	3.56 (2.45 - 5.17)	88 / 42	2.31 (1.39 - 3.82)	
	rs915909	C/T	never drinkers	115 / 270	1.00 (ref)	2 / 9	0.62 (0.12 - 3.24)	0.80
			>0 to <134,699	206 / 449	0.76 (0.56 - 1.03)	3 / 15	0.35 (0.09 - 1.30)	
			134,699 to <757,550	302 / 348	1.26 (0.92 - 1.71)	16 / 12	1.74 (0.71 - 4.24)	
			757,550+	468 / 163	3.15 (2.23 - 4.44)	36 / 9	3.56 (1.56 - 8.17)	
	rs7092584	C/T	never drinkers	92 / 223	1.00 (ref)	25 / 57	1.17 (0.66 - 2.07)	1.06
			>0 to <134,699	167 / 375	0.75 (0.54 - 1.05)	42 / 91	0.89 (0.56 - 1.44)	
			134,699 to <757,550	252 / 279	1.36 (0.97 - 1.92)	65 / 80	1.24 (0.79 - 1.94)	
			757,550+	384 / 142	3.10 (2.14 - 4.49)	120 / 31	4.33 (2.58 - 7.26)	
	rs743535	C/T	never drinkers	95 / 223	1.00 (ref)	22 / 53	0.93 (0.51 - 1.69)	2.26
			>0 to <134,699	169 / 386	0.70 (0.50 - 0.98)	40 / 78	0.91 (0.56 - 1.49)	
			134,699 to <757,550	252 / 279	1.29 (0.92 - 1.81)	60 / 80	1.04 (0.66 - 1.65)	
			757,550+	386 / 147	2.79 (1.93 - 4.04)	116 / 26	4.98 (2.89 - 8.59)	
	rs2249695	C/T	never drinkers	73 / 136	1.00 (ref)	44 / 144	0.56 (0.35 - 0.91)	1.21
			>0 to <134,699	127 / 253	0.63 (0.43 - 0.94)	82 / 213	0.52 (0.34 - 0.80)	
			134,699 to <757,550	160 / 178	1.06 (0.71 - 1.59)	158 / 181	0.95 (0.63 - 1.43)	
			757,550+	218 / 92	2.12 (1.37 - 3.28)	286 / 81	2.89 (1.83 - 4.55)	
	rs28969387	A/T	never drinkers	115 / 275	1.00 (ref)	2 / 5	1.03 (0.16 - 6.58)	0.05
			>0 to <134,699	206 / 464	0.75 (0.55 - 1.01)	3 / 2	2.25 (0.33 - 15.13)	
			134,699 to <757,550	311 / 353	1.30 (0.95 - 1.77)	7 / 7	1.06 (0.33 - 3.38)	
			757,550+	493 / 170	3.22 (2.29 - 4.54)	12 / 3	3.30 (0.88 - 12.40)	

Table S4. Odds ratios for developing SCCHN for SNP genotypes, at varying levels of lifetime alcohol consumption

Gene	SNP	major/ minor alleles	lifetime ethanol consumption (ml)	Odds ratios in comparison to common referent group[a]: homozygous major allele — n (cases/ controls)[b]	homozygous major allele — Adjusted odds ratio[c] (95% CI)	at least one minor allele — n (cases/ controls)[b]	at least one minor allele — Adjusted odds ratio[c] (95% CI)	Assessment of additive interaction between SNP and lifetime alcohol consumption — ICR[d] (**bold** if statistically significant after Bonferroni correction)
	rs11101812	T/C	never drinkers	115 / 275	1.00 (ref)	1 / 5	0.41 (0.04 - 3.90)	19.34
			>0 to <134,699	205 / 463	0.74 (0.55 - 1.00)	4 / 3	2.70 (0.52 - 14.05)	
			134,699 to <757,550	312 / 348	1.31 (0.96 - 1.79)	5 / 10	0.67 (0.20 - 2.23)	
			757,550+	489 / 172	3.10 (2.20 - 4.36)	15 / 1	21.85 (2.60 183.30)	
OXIDATIVE STRESS METABOLISM GENES								
CAT	rs1049982	C/T	never drinkers	60 / 137	1.00 (ref)	57 / 140	1.10 (0.69 - 1.77)	-0.15
			>0 to <134,699	95 / 216	0.75 (0.49 - 1.15)	114 / 247	0.81 (0.54 - 1.22)	
			134,699 to <757,550	135 / 150	1.41 (0.92 - 2.16)	183 / 209	1.29 (0.85 - 1.94)	
			757,550+	200 / 71	3.33 (2.10 - 5.28)	303 / 102	3.28 (2.12 - 5.07)	
GPX1	rs8179172	T/A	never drinkers	116 / 270	1.00 (ref)	1 / 10	0.14 (0.02 - 1.25)	0.16
			>0 to <134,699	205 / 450	0.73 (0.54 - 0.99)	4 / 16	0.44 (0.13 - 1.46)	
			134,699 to <757,550	305 / 349	1.21 (0.88 - 1.65)	13 / 11	2.15 (0.85 - 5.44)	
			757,550+	475 / 160	3.10 (2.19 - 4.38)	30 / 13	2.40 (1.10 - 5.27)	
	rs1800668	C/T	never drinkers	56 / 146	1.00 (ref)	61 / 132	1.16 (0.73 - 1.85)	0.37
			>0 to <134,699	97 / 222	0.76 (0.50 - 1.16)	112 / 243	0.85 (0.56 - 1.29)	
			134,699 to <757,550	178 / 185	1.43 (0.94 - 2.16)	140 / 175	1.33 (0.87 - 2.04)	
			757,550+	272 / 95	3.23 (2.07 - 5.05)	233 / 77	3.75 (2.37 - 5.95)	
	rs3811699	A/G	never drinkers	55 / 142	1.00 (ref)	62 / 138	1.14 (0.72 - 1.82)	0.37
			>0 to <134,699	95 / 216	0.76 (0.50 - 1.17)	114 / 250	0.85 (0.56 - 1.29)	
			134,699 to <757,550	171 / 176	1.45 (0.95 - 2.21)	147 / 184	1.31 (0.86 - 2.01)	
			757,550+	258 / 91	3.21 (2.04 - 5.04)	247 / 82	3.71 (2.35 - 5.88)	
	rs3448	C/T	never drinkers	60 / 158	1.00 (ref)	57 / 122	1.27 (0.80 - 2.03)	0.32
			>0 to <134,699	116 / 256	0.84 (0.56 - 1.26)	93 / 210	0.84 (0.55 - 1.28)	
			134,699 to <757,550	157 / 192	1.35 (0.89 - 2.03)	161 / 168	1.55 (1.03 - 2.34)	
			757,550+	273 / 105	3.34 (2.17 - 5.14)	232 / 68	3.93 (2.49 - 6.22)	
GPX2	rs11623705	G/T	never drinkers	86 / 232	1.00 (ref)	31 / 48	1.58 (0.90 - 2.77)	-0.76
			>0 to <134,699	166 / 367	0.83 (0.59 - 1.17)	43 / 99	0.83 (0.52 - 1.32)	
			134,699 to <757,550	263 / 292	1.47 (1.05 - 2.08)	55 / 68	1.24 (0.77 - 2.01)	
			757,550+	421 / 142	3.60 (2.47 - 5.24)	84 / 31	3.41 (2.00 - 5.84)	
	rs2412065	G/C	never drinkers	67 / 158	1.00 (ref)	50 / 122	1.00 (0.62 - 1.60)	0.06
			>0 to <134,699	126 / 251	0.85 (0.57 - 1.26)	83 / 215	0.65 (0.43 - 0.99)	
			134,699 to <757,550	186 / 204	1.32 (0.89 - 1.96)	132 / 156	1.25 (0.82 - 1.90)	
			757,550+	278 / 99	3.18 (2.07 - 4.88)	227 / 74	3.24 (2.06 - 5.10)	
	rs2737844	C/T	never drinkers	58 / 117	1.00 (ref)	59 / 161	0.76 (0.48 - 1.22)	0.03
			>0 to <134,699	100 / 173	0.84 (0.54 - 1.30)	108 / 292	0.54 (0.35 - 0.82)	
			134,699 to <757,550	129 / 147	1.09 (0.70 - 1.70)	188 / 211	1.12 (0.73 - 1.72)	
			757,550+	180 / 62	2.84 (1.73 - 4.65)	322 / 111	2.63 (1.66 - 4.16)	
GPX4	rs757229	G/C	never drinkers	35 / 83	1.00 (ref)	82 / 197	0.92 (0.55 - 1.52)	0.09
			>0 to <134,699	58 / 114	0.74 (0.43 - 1.28)	150 / 352	0.69 (0.43 - 1.12)	
			134,699 to <757,550	67 / 109	0.90 (0.52 - 1.56)	251 / 251	1.34 (0.83 - 2.17)	
			757,550+	116 / 40	3.05 (1.68 - 5.54)	389 / 132	3.05 (1.84 - 5.06)	
SOD1	rs11910115	A/C	never drinkers	116 / 271	1.00 (ref)	1 / 9	0.31 (0.03 - 2.91)	2.22
			>0 to <134,699	205 / 441	0.76 (0.56 - 1.04)	4 / 25	0.27 (0.08 - 0.92)	
			134,699 to <757,550	299 / 340	1.27 (0.93 - 1.73)	19 / 20	1.33 (0.62 - 2.85)	
			757,550+	469 / 165	3.09 (2.19 - 4.35)	36 / 8	4.63 (1.94 - 11.06)	
	rs4998557	G/A	never drinkers	85 / 202	1.00 (ref)	32 / 78	0.91 (0.54 - 1.53)	1.51
			>0 to <134,699	157 / 341	0.75 (0.53 - 1.07)	52 / 122	0.69 (0.44 - 1.09)	
			134,699 to <757,550	208 / 258	1.15 (0.80 - 1.64)	110 / 102	1.53 (1.00 - 2.34)	
			757,550+	328 / 124	2.76 (1.87 - 4.08)	176 / 49	4.18 (2.60 - 6.72)	
	rs10432782	T/G	never drinkers	86 / 208	1.00 (ref)	31 / 72	0.95 (0.56 - 1.61)	1.15
			>0 to <134,699	162 / 351	0.77 (0.55 - 1.09)	47 / 115	0.65 (0.41 - 1.04)	
			134,699 to <757,550	222 / 267	1.20 (0.84 - 1.70)	96 / 93	1.48 (0.96 - 2.27)	
			757,550+	350 / 128	2.91 (1.98 - 4.27)	154 / 44	4.00 (2.48 - 6.46)	
	rs2070424	A/G	never drinkers	95 / 238	1.00 (ref)	22 / 42	1.17 (0.63 - 2.17)	0.01
			>0 to <134,699	181 / 402	0.78 (0.56 - 1.08)	28 / 64	0.76 (0.44 - 1.30)	
			134,699 to <757,550	260 / 302	1.31 (0.94 - 1.83)	58 / 58	1.41 (0.87 - 2.30)	
			757,550+	407 139	3.27 (2.27 - 4.72)	98 / 34	3.45 (2.06 - 5.79)	

Table S4. Odds ratios for developing SCCHN for SNP genotypes, at varying levels of lifetime alcohol consumption

Gene	SNP	major/ minor alleles	lifetime ethanol consumption (ml)	Odds ratios in comparison to common referent group[a]: homozygous major allele — n (cases/ controls)[b]	Adjusted odds ratio[c] (95% CI)	at least one minor allele — n (cases/ controls)[b]	Adjusted odds ratio[c] (95% CI)	Assessment of additive interaction between SNP and lifetime alcohol consumption: ICR[d] (**bold** if statistically significant after Bonferroni correction)
	rs1041740	C/T	never drinkers	56 / 156	1.00 (ref)	61 / 124	1.43 (0.89 - 2.28)	-1.09
			>0 to <134,699	104 / 239	0.89 (0.59 - 1.35)	105 / 227	0.90 (0.59 - 1.37)	
			134,699 to <757,550	193 / 191	1.71 (1.13 - 2.59)	125 / 169	1.33 (0.86 - 2.05)	
			757,550+	291 / 94	4.15 (2.65 - 6.49)	214 / 79	3.49 (2.21 - 5.52)	
SOD2	rs4342445	G/A	never drinkers	55 / 177	1.00 (ref)	62 / 103	2.14 (1.33 - 3.44)	0.27
			>0 to <134,699	135 / 296	1.10 (0.74 - 1.63)	74 / 170	0.96 (0.62 - 1.49)	
			134,699 to <757,550	184 / 227	1.61 (1.07 - 2.40)	134 / 133	2.11 (1.38 - 3.24)	
			757,550+	331 / 123	4.04 (2.65 - 6.17)	174 / 50	5.45 (3.33 - 8.90)	
	rs2842980	A/T	never drinkers	74 / 169	1.00 (ref)	43 / 111	0.87 (0.54 - 1.41)	0.89
			>0 to <134,699	121 / 282	0.69 (0.47 - 1.01)	88 / 184	0.76 (0.50 - 1.14)	
			134,699 to <757,550	196 / 222	1.27 (0.87 - 1.87)	122 / 138	1.15 (0.76 - 1.74)	
			757,550+	291 / 108	2.77 (1.84 - 4.19)	214 / 65	3.54 (2.25 - 5.56)	
	rs8031	T/A	never drinkers	38 / 75	1.00 (ref)	79 / 205	0.84 (0.51 - 1.40)	-0.97
			>0 to <134,699	59 / 139	0.58 (0.34 - 0.98)	150 / 327	0.71 (0.44 - 1.15)	
			134,699 to <757,550	101 / 113	1.14 (0.68 - 1.93)	217 / 247	1.15 (0.71 - 1.86)	
			757,550+	155 / 40	3.73 (2.08 - 6.71)	350 / 133	2.61 (1.59 - 4.30)	
	rs5746134	C/T	never drinkers	113 / 264	1.00 (ref)	4 / 16	0.55 (0.16 - 1.87)	4.29
			>0 to <134,699	201 / 447	0.73 (0.54 - 0.99)	8 / 19	0.80 (0.31 - 2.08)	
			134,699 to <757,550	299 / 342	1.25 (0.91 - 1.71)	19 / 18	1.47 (0.68 - 3.18)	
			757,550+	446 / 163	2.96 (2.09 - 4.19)	59 / 10	6.80 (3.03 - 15.26)	
	rs2758331	C/A	never drinkers	38 / 82	1.00 (ref)	79 / 198	0.92 (0.55 - 1.52)	-1.51
			>0 to <134,699	60 / 151	0.58 (0.34 - 0.98)	149 / 315	0.78 (0.48 - 1.24)	
			134,699 to <757,550	108 / 127	1.14 (0.68 - 1.90)	210 / 233	1.26 (0.78 - 2.03)	
			757,550+	179 / 44	4.23 (2.39 - 7.50)	326 / 129	2.64 (1.61 - 4.34)	

[a] Conditional logistic regression models conditioned on sex, race, and age category (age in years: 20-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-80), and adjusted for continous duration of smoking in years (rounded to nearest whole year)

[b] Cases and controls do not sum to 1227 and 1325, respectively, because (1) 4 cases and 3 controls are missing information on duration of cigarette smoking, (2) 77 cases and 45 controls are missing information on lifetime alcohol consumption, and (3) a few subjects are missing genotype information for some SNPs

[c] Odds ratios (ORs) for each SNP*drinking category were calculated from conditional logistic regression models including one SNP coded for dominant genetic model, categorized lifetime ethanol consumption, conditioned on sex, race, and age category, and adjusted for continuous smoking duration rounded to whole years.

[d] ICRs were calculated using cancer odds ratios of subjects in three categories: (1) the highest drinking category and no minor allele (i.e., those singly exposed to drinking only -- OR_{01}); (2) never-drinkers with at least one minor allele (i.e., those singly exposed to only the variant allele -- OR_{10}); and (3) subjects in the highest drinking category and at least one minor allele (i.e., those doubly exposed to both alcohol and the variant allele -- OR_{11}), compared to never-drinkers homozygous for the major allele (i.e., the referent group that was not exposed to either the variant allele or to drinking -- $OR_{00} = 1.0$). ICRs statistically different from 0 indicate departure from additive interaction. p-values for each ICR (not shown) were Bonferroni-adjusted for 64 statistical tests.

Table S5. SNP effects (dominant genetic model) on odds of developing SCCHN, overall and by race

(Odds ratios (ORs) for carriers of the minor allele compared to homozygotes for the major allele)

Gene	SNP[1]	major/ minor alleles	Genotype	ALL SUBJECTS COMBINED			AFRICAN-AMERICANS ONLY			EUROPEAN-AMERICANS ONLY		
				n cases/ controls[2]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[4]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[5]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)
ALCOHOL METABOLISM GENES												
ADH1B	rs12507573	C/A	CC	371/386			99/83			272/303		
			AA or CA	852/935	0.96 (0.87-1.06)	1.00	204/167	1.05 (0.67-1.64)	1.00	648/768	0.89 (0.72-1.11)	1.00
	rs1042026	A/G	AA	712/744			246/210			466/534		
			GG or AG	511/578	1.00 (0.91-1.10)	1.00	57/41	0.90 (0.51-1.58)	1.00	454/537	0.99 (0.82-1.20)	1.00
	rs7673353	C/T	CC	1124/1239			207/174			917/1065		
			TT or CT	99/83	1.01 (0.83-1.23)	1.00	96/77	1.16 (0.73-1.85)	1.00	3/6	0.35 (0.08-1.48)	1.00
	rs17028834	T/C	TT	1138/1265			222/196			916/1069		
			CC or TC	85/57	1.28 (1.03-1.59)	1.00	81/55	1.92 (1.14-3.21)	0.88	4/2	3.02 (0.48-18.98)	1.00
	rs1693457 tag SNP, intron 4	T/C	TT	803/860			208/148			595/712		
			CC or TC	419/461	1.01 (0.92-1.11)	1.00	95/102	0.64 (0.41-0.99)	1.00	324/359	1.15 (0.94-1.41)	1.00
	rs1229984	G/A	GG	1192/1243			302/246			890/997		
			AA or GA	31/79	0.72 (0.57-0.91)	0.35	1/5	0.12 (0.01-1.24)	1.00	30/74	0.54 (0.34-0.87)	0.69
	rs1159918	G/T	GG	402/468			28/18			374/450		
			TT or GT	821/854	1.07 (0.97-1.18)	1.00	275/233	1.39 (0.66-2.92)	1.00	546/621	1.14 (0.94-1.39)	1.00
	rs1229982	G/T	GG	699/775			89/75			610/700		
			TT or GT	524/547	1.00 (0.91-1.10)	1.00	214/176	1.33 (0.84-2.10)	1.00	310/371	0.96 (0.78-1.17)	1.00
ADH1C	rs2298753	T/C	TT	1002/1117			283/237			719/880		
			CC or TC	221/205	1.12 (1.00-1.27)	1.00	20/14	1.13 (0.46-2.77)	1.00	201/191	1.28 (1.00-1.63)	1.00
	rs1614972	C/T	CC	539/585			94/55			445/530		
			TT or CT	684/737	1.00 (0.92-1.09)	1.00	209/196	0.74 (0.46-1.20)	1.00	475/541	1.07 (0.88-1.29)	1.00
	rs1391088	C/A	CC	1045/1119			246/213			799/906		
			AA or CA	178/203	1.01 (0.89-1.14)	1.00	57/38	1.55 (0.87-2.77)	1.00	121/165	0.91 (0.69-1.21)	1.00
	rs1693482	C/T	CC	527/585			203/183			324/402		
			TT or CT	694/735	1.05 (0.95-1.15)	1.00	100/68	1.32 (0.83-2.12)	1.00	594/667	1.05 (0.86-1.29)	1.00
	rs1631460	C/G	CC	519/574			202/182			317/392		
			GG or CG	703/748	1.04 (0.95-1.14)	1.00	101/69	1.31 (0.82-2.09)	1.00	602/679	1.05 (0.86-1.28)	1.00
	rs11936869	C/G	CC	611/645			109/72			502/573		
			GG or CG	612/676	0.98 (0.90-1.07)	1.00	194/178	0.76 (0.48-1.19)	1.00	418/498	1.00 (0.83-1.22)	1.00
ADH4	rs29001227	A/T	AA	1119/1253			204/184			915/1069		
			TT or AT	104/69	1.25 (1.02-1.53)	1.00	99/67	1.70 (1.05-2.73)	1.00	5/2	3.42 (0.58-20.22)	1.00
	rs1126672	C/T	CC	720/758			237/203			483/555		
			TT or CT	503/564	1.01 (0.92-1.10)	1.00	66/48	1.45 (0.85-2.49)	1.00	437/516	0.98 (0.81-1.19)	1.00
	rs4699710	T/C	TT	640/684			200/168			440/516		
			CC or TC	583/638	1.01 (0.93-1.11)	1.00	103/83	1.10 (0.70-1.74)	1.00	480/555	1.02 (0.84-1.24)	1.00
	rs10017466 tag SNP, intron 5	T/C	TT	556/632			120/118			436/514		
			CC or TC	666/690	1.05 (0.97-1.15)	1.00	182/133	1.65 (1.07-2.55)	1.00	484/557	1.04 (0.85-1.26)	1.00
	rs1800759	C/A	CC	357/412			21/16			336/396		
			AA or CA	866/910	1.02 (0.92-1.12)	1.00	282/235	1.57 (0.70-3.52)	1.00	584/675	1.02 (0.83-1.24)	1.00
	rs1800761	G/A	GG	750/830			153/129			597/701		
			AA or GA	473/492	1.02 (0.93-1.12)	1.00	150/122	0.99 (0.64-1.51)	1.00	323/370	1.06 (0.86-1.29)	1.00
	rs3762894	T/C	TT	839/906			190/161			649/745		
			CC or TC	384/416	0.98 (0.89-1.08)	1.00	113/90	1.06 (0.68-1.66)	1.00	271/326	0.94 (0.76-1.16)	1.00
ADH7	rs284787	C/T	CC	739/817			219/188			520/629		
			TT or CT	484/505	1.06 (0.96-1.16)	1.00	84/63	0.86 (0.54-1.39)	1.00	400/442	1.14 (0.94-1.39)	1.00
	rs894369	C/G	CC	832/849			219/176			613/673		
			GG or CG	391/472	0.92 (0.84-1.01)	1.00	84/74	1.09 (0.67-1.76)	1.00	307/398	0.82 (0.67-1.00)	1.00
	rs17588403	T/A	TT	837/887			233/190			604/697		
			AA or TA	386/435	0.96 (0.87-1.05)	1.00	70/61	0.78 (0.48-1.29)	1.00	316/374	0.95 (0.77-1.16)	1.00
	rs1154454	T/C	TT	756/808			110/75			646/733		
			CC or TC	467/514	0.94 (0.86-1.04)	1.00	193/176	0.68 (0.43-1.08)	1.00	274/338	0.94 (0.76-1.16)	1.00
	rs1154456	T/C	TT	577/629			209/176			368/453		
			CC or TC	646/693	1.03 (0.94-1.13)	1.00	94/75	0.90 (0.57-1.43)	1.00	552/618	1.10 (0.90-1.34)	1.00
	rs1154460	G/A	GG	329/377			70/65			259/312		
			AA or GA	891/944	1.04 (0.95-1.15)	1.00	233/185	1.11 (0.67-1.82)	1.00	658/759	1.08 (0.87-1.34)	1.00
	rs971074	G/A	GG	943/1027			195/176			748/851		
			AA or GA	280/295	1.01 (0.91-1.12)	1.00	108/75	1.21 (0.77-1.90)	1.00	172/220	0.94 (0.74-1.20)	1.00
	rs1573496	C/G	CC	1056/1117			296/245			760/872		
			GG or CG	166/205	0.99 (0.87-1.12)	1.00	7/6	0.78 (0.20-3.03)	1.00	159/199	0.97 (0.75-1.24)	1.00
ALDH2	rs4767939	A/G	AA	694/806			107/88			587/718		
			GG or AG	528/516	1.08 (0.98-1.18)	1.00	196/163	1.07 (0.69-1.67)	1.00	332/353	1.19 (0.97-1.45)	1.00
	rs2238151	T/C	TT	364/482			2/1			362/481		
			CC or TC	855/837	1.13 (1.03-1.25)	0.84	301/250	0.91 (0.06-14.48)	1.00	554/587	1.28 (1.05-1.56)	0.88

Table S5. SNP effects (dominant genetic model) on odds of developing SCCHN, overall and by race

(Odds ratios (ORs) for carriers of the minor allele compared to homozygotes for the major allele)

Gene	SNP[1]	major/ minor alleles	Genotype	ALL SUBJECTS COMBINED			AFRICAN-AMERICANS ONLY			EUROPEAN-AMERICANS ONLY		
				n cases/ controls[2]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[4]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[5]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)
	rs7312055	G/A	GG	1081/1201			166/138			915/1063		
			AA or GA	142/121	0.93 (0.78-1.12)	1.00	137/113	0.82 (0.53-1.26)	1.00	5/8	0.74 (0.22-2.54)	1.00
	rs2158029	G/A	GG	1166/1269			252/209			914/1060		
			AA or GA	57/53	0.95 (0.75-1.19)	1.00	51/42	0.95 (0.53-1.69)	1.00	6/11	0.55 (0.18-1.66)	1.00
	rs16941667	C/T	CC	985/1097			224/188			761/909		
			TT or CT	238/224	1.10 (0.98-1.23)	1.00	79/62	1.21 (0.75-1.97)	1.00	159/162	1.21 (0.93-1.58)	1.00
	rs16941669	T/G	TT	984/1084			251/214			733/870		
			GG or TG	239/236	1.06 (0.95-1.19)	1.00	52/36	1.52 (0.83-2.77)	1.00	187/200	1.08 (0.85-1.38)	1.00
CYP2E1	rs3813865	G/C	GG	1098/1215			223/195			875/1020		
			CC or GC	125/106	1.08 (0.92-1.27)	1.00	80/56	1.22 (0.75-2.00)	1.00	45/50	1.15 (0.73-1.82)	1.00
	rs3813867	G/C	GG	1139/1237			271/224			868/1013		
			CC or GC	83/84	0.97 (0.82-1.16)	1.00	31/26	1.13 (0.56-2.29)	1.00	52/58	0.92 (0.60-1.39)	1.00
	rs8192772	T/C	TT	1023/1114			235/196			788/918		
			CC or TC	199/208	1.07 (0.95-1.21)	1.00	67/55	1.30 (0.77-2.19)	1.00	132/153	1.14 (0.86-1.50)	1.00
	rs915908	G/A	GG	974/1006			286/228			688/778		
			AA or GA	249/316	0.93 (0.84-1.04)	1.00	17/23	0.55 (0.24-1.25)	1.00	232/293	0.90 (0.72-1.12)	1.00
	rs915909	C/T	CC	1164/1271			245/204			919/1067		
			TT or CT	58/46	1.00 (0.79-1.27)	1.00	57/42	1.08 (0.62-1.88)	1.00	1/4	0.22 (0.02-2.17)	1.00
	rs7092584	C/T	CC	959/1052			217/187			742/865		
			TT or CT	262/269	1.05 (0.95-1.17)	1.00	84/63	1.45 (0.89-2.37)	1.00	178/206	1.05 (0.82-1.35)	1.00
	rs743535	C/T	CC	966/1071			210/188			756/883		
			TT or CT	248/243	1.06 (0.95-1.19)	1.00	89/61	1.46 (0.90-2.37)	1.00	159/182	1.05 (0.81-1.36)	1.00
	rs2249695	C/T	CC	622/682			28/23			594/659		
			TT or CT	600/639	0.93 (0.85-1.03)	1.00	275/227	1.16 (0.55-2.44)	1.00	325/412	0.86 (0.70-1.05)	1.00
	rs28969387	A/T	AA	1198/1302			280/231			918/1071		
			TT or AT	25/20	0.98 (0.70-1.37)	1.00	23/20	0.82 (0.37-1.78)	1.00	2/0	N/A	1.00
	rs11101812	T/C	TT	1194/1300			277/230			917/1070		
			CC or TC	26/20	1.11 (0.79-1.56)	1.00	24/19	1.19 (0.52-2.72)	1.00	2/1	2.97 (0.20-44.70)	1.00
OXIDATIVE STRESS METABOLISM GENES												
CAT	rs1049982	C/T	CC	521/589			92/76			429/513		
			TT or CT	700/726	1.02 (0.93-1.11)	1.00	211/173	0.93 (0.59-1.49)	1.00	489/553	1.05 (0.86-1.27)	1.00
GPX1	rs8179172	T/A	TT	1172/1271			253/202			919/1069		
			AA or TA	51/51	0.92 (0.73-1.17)	1.00	50/49	0.88 (0.51-1.52)	1.00	1/2	0.27 (0.02-3.00)	1.00
	rs1800668	C/T	CC	635/672			173/140			462/532		
			TT or CT	588/646	1.04 (0.95-1.14)	1.00	130/110	1.13 (0.74-1.74)	1.00	458/536	1.06 (0.88-1.29)	1.00
	rs3811699	A/G	AA	609/649			147/118			462/531		
			GG or AG	614/673	1.04 (0.95-1.13)	1.00	156/133	1.19 (0.78-1.82)	1.00	458/540	1.05 (0.87-1.28)	1.00
	rs3448	C/T	CC	648/729			160/138			488/591		
			TT or CT	575/593	1.03 (0.95-1.13)	1.00	143/113	1.07 (0.70-1.64)	1.00	432/480	1.06 (0.87-1.29)	1.00
GPX2	rs11623705	G/T	GG	996/1069			288/232			708/837		
			TT or GT	227/253	1.00 (0.89-1.12)	1.00	15/19	0.70 (0.30-1.64)	1.00	212/234	1.04 (0.83-1.31)	1.00
	rs2412065	G/C	GG	694/733			101/85			593/648		
			CC or GC	529/589	0.94 (0.86-1.03)	1.00	202/166	1.15 (0.73-1.80)	1.00	327/423	0.85 (0.69-1.03)	1.00
	rs2737844 tag SNP, intron 1	C/T	CC	493/511			13/14			480/497		
			TT or CT	725/806	0.89 (0.81-0.99)	1.00	289/237	2.15 (0.85-5.46)	1.00	436/569	0.78 (0.64-0.94)	0.73
GPX4	rs757229	G/C	GG	300/358			55/42			245/316		
			CC or GC	922/963	1.03 (0.93-1.14)	1.00	247/209	0.71 (0.41-1.26)	1.00	675/754	1.13 (0.91-1.40)	1.00
SOD1	rs11910115	A/C	AA	1161/1257			242/187			919/1070		
			CC or AC	62/65	0.93 (0.74-1.17)	1.00	61/64	0.93 (0.55-1.56)	1.00	1/1	0.76 (0.03-17.42)	1.00
	rs4998557 tag SNP, intron 1	G/A	GG	829/959			126/100			703/859		
			AA or GA	393/360	1.09 (0.99-1.21)	1.00	177/151	0.80 (0.52-1.24)	1.00	216/209	1.33 (1.05-1.68)	1.00
	rs10432782 tag SNP, intron 2	T/G	TT	874/992			171/130			703/862		
			GG or TG	348/329	1.07 (0.97-1.18)	1.00	132/121	0.65 (0.42-1.00)	1.00	216/208	1.35 (1.07-1.71)	0.82
	rs2070424 tag SNP, intron 3	A/G	AA	1003/1120			215/167			788/953		
			GG or AG	220/202	1.06 (0.94-1.20)	1.00	88/84	0.52 (0.33-0.83)	0.36	132/118	1.47 (1.10-1.97)	0.58
	rs1041740	C/T	CC	682/705			236/205			446/500		
			TT or CT	541/617	0.98 (0.90-1.07)	1.00	67/46	1.19 (0.70-2.02)	1.00	474/571	0.92 (0.76-1.12)	1.00
SOD2	rs4342445	G/A	GG	752/850			229/188			523/662		
			AA or GA	471/472	1.11 (1.02-1.22)	1.00	74/63	1.11 (0.68-1.82)	1.00	397/409	1.27 (1.04-1.54)	1.00
	rs2842980	A/T	AA	715/807			136/135			579/672		
			TT or AT	508/515	1.02 (0.94-1.12)	1.00	167/116	1.53 (1.00-2.35)	1.00	341/399	0.96 (0.79-1.18)	1.00
	rs8031	T/A	TT	387/382			138/109			249/273		
			AA or TA	836/940	0.98 (0.89-1.08)	1.00	165/142	1.01 (0.66-1.55)	1.00	671/798	0.96 (0.77-1.20)	1.00

Table S5. SNP effects (dominant genetic model) on odds of developing SCCHN, overall and by race

(Odds ratios (ORs) for carriers of the minor allele compared to homozygotes for the major allele)

Gene	SNP[1]	major/ minor alleles	Genotype	ALL SUBJECTS COMBINED			AFRICAN-AMERICANS ONLY			EUROPEAN-AMERICANS ONLY		
				n cases/ controls[2]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[4]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)	n cases/ controls[5]	Adjusted OR[3] (95% CI)	p-value (Bonferroni-corrected for 64 tests)
	rs5746134	C/T	CC	1125/1257			205/190			920/1067		
			TT or CT	98/65	1.20 (0.98-1.48)	1.00	98/61	1.66 (1.02-2.70)	1.00	0/4	N/A	1.00
	rs2758331	C/A	CC	422/419			172/146			250/273		
			AA or CA	801/903	0.99 (0.90-1.09)	1.00	131/105	1.13 (0.74-1.73)	1.00	670/798	0.95 (0.76-1.18)	1.00

[1] Two SNP names highlighted in **bold** show strong evidence of OR differences between African-Americans and European-Americans using the criterion of non-overlapping 95% CIs. Four SNP names highlighted in *italics* show some evidence of OR differences between African- and European-Americans, but 95% CIs overlap somewhat

[2] Cases and controls do not sum to 1227 and 1325, respectively, because 4 cases and 3 controls are missing information on duration of cigarette smoking, and a few subjects lack genotype information for some SNPs

[3] Conditional logistic regression models for calculating main effects of each SNP were conditioned on sex, race, and age category, and adjusted for continuous duration of smoking in years (rounded to whole years)

[4] Numbers of African-American subjects do not sum to 305 cases and 251 controls, respectively, because 2 cases are missing information on duration of cigarette smoking, and a few subjects lack genotype information for some SNPs.

[5] Numbers of European-American subjects do not sum to 922 cases and 1074 controls, respectively, because 2 cases and 3 controls are missing information on duration of cigarette smoking, and a few subjects lack genotype information for some SNPs.