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# Causal Relationships between Body Mass Index, Smoking, and Lung Cancer: Univariable and Multivariable Mendelian Randomization

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**Table S1. Detailed information for instrumental variables of BMI, smoking status, age of smoking initiation, smoking cessation, and cigarettes per day\***

Chr	Position	rsID	Effect Allele	Other Allele	EAF	Beta	SE	P	SampleSize	Exposure	SNP Type	R <sup>2</sup>	F-statistic
<i>Instrumental variables of BMI</i>													
4	31023610	rs10007906	A	C	0.360	0.013	0.002	1.70E-13	686479	BMI	BMI-Only	7.95E-05	55
4	44480783	rs10009336	T	C	0.164	-0.014	0.002	2.20E-10	794766	BMI	BMI-Only	5.10E-05	40
17	5283252	rs1000940	A	G	0.701	-0.015	0.002	1.10E-17	794558	BMI	BMI&Smoking	9.21E-05	73
5	153138042	rs10058464	A	C	0.112	-0.018	0.003	1.30E-10	692520	BMI	BMI-Only	6.07E-05	42
13	28047269	rs1006353	A	G	0.249	0.013	0.002	2.30E-11	790767	BMI	BMI&Smoking	5.56E-05	44
3	88104411	rs1006896	A	C	0.894	0.023	0.003	5.50E-18	691892	BMI	BMI&Smoking	1.09E-04	75
14	73463479	rs1007934	A	G	0.415	-0.012	0.002	7.60E-12	692411	BMI	BMI-Only	7.20E-05	50
9	10119157	rs10118866	T	G	0.224	0.012	0.002	6.20E-09	690616	BMI	BMI-Only	4.73E-05	33
14	25928179	rs10132280	A	C	0.302	-0.022	0.002	5.60E-35	786578	BMI	BMI&Smoking	1.95E-04	153
14	33298330	rs10145461	T	G	0.463	-0.014	0.002	4.70E-16	674848	BMI	BMI&Smoking	1.03E-04	70
14	79499850	rs10146527	T	C	0.636	0.014	0.002	2.30E-15	781339	BMI	BMI&Smoking	8.31E-05	65
15	53525415	rs10163018	T	C	0.375	-0.011	0.002	1.50E-10	689715	BMI	BMI&Smoking	5.82E-05	40
2	50744774	rs10176705	T	C	0.383	-0.012	0.002	8.10E-12	680644	BMI	BMI&Smoking	6.75E-05	46
2	25150296	rs10182181	A	G	0.525	-0.033	0.002	6.70E-90	792111	BMI	BMI&Smoking	5.21E-04	413
2	164581241	rs10192119	T	G	0.833	-0.017	0.002	3.00E-14	795369	BMI	BMI&Smoking	7.16E-05	57
2	105454590	rs10197031	T	C	0.717	-0.017	0.002	1.90E-18	691479	BMI	BMI&Smoking	1.10E-04	76
2	157109395	rs10198345	T	C	0.671	-0.011	0.002	2.20E-09	689813	BMI	BMI-Only	5.32E-05	37
6	56810539	rs1020548	A	G	0.834	-0.013	0.002	6.60E-09	688748	BMI	BMI-Only	4.78E-05	33
2	229016917	rs10211055	T	C	0.654	-0.016	0.002	7.20E-18	686577	BMI	BMI&Smoking	1.11E-04	76
7	147674678	rs10243319	T	C	0.606	0.011	0.002	1.20E-09	690936	BMI	BMI&Smoking	5.11E-05	35
7	39444551	rs10259786	A	G	0.646	0.011	0.002	4.10E-10	688834	BMI	BMI&Smoking	5.82E-05	40
7	19778086	rs10263780	A	G	0.139	-0.016	0.003	8.30E-09	544806	BMI	BMI-Only	6.21E-05	34
7	49616203	rs10269783	A	G	0.390	0.013	0.002	1.40E-15	790551	BMI	BMI-Only	7.74E-05	61
7	69598328	rs1035010	T	C	0.257	0.014	0.002	6.20E-12	637868	BMI	BMI&Smoking	7.57E-05	48
17	28074563	rs1038088	T	G	0.492	-0.012	0.002	4.60E-13	794680	BMI	BMI-Only	6.73E-05	53
19	33963766	rs10408013	T	C	0.291	0.011	0.002	8.00E-10	794820	BMI	BMI-Only	4.78E-05	38
3	51311574	rs10433609	A	T	0.832	0.016	0.002	1.70E-12	689684	BMI	BMI-Only	7.19E-05	50
18	42950629	rs10438964	T	C	0.276	-0.013	0.002	7.60E-11	686868	BMI	BMI&Smoking	6.50E-05	45
13	31033232	rs1045411	T	C	0.265	-0.015	0.002	2.30E-15	776153	BMI	BMI&Smoking	7.82E-05	61

3	42308735	rs10460960	A	G	0.888	0.020	0.003	8.10E-15	793248	BMI	BMI-Only	7.83E-05	62
14	30495719	rs10483389	T	C	0.040	0.034	0.004	4.50E-16	782081	BMI	BMI-Only	8.48E-05	66
11	115044850	rs1048932	A	C	0.416	-0.016	0.002	3.80E-22	795167	BMI	BMI&Smoking	1.11E-04	89
17	46120767	rs10491182	T	C	0.927	0.019	0.003	2.80E-09	781486	BMI	BMI&Smoking	4.66E-05	36
2	198895732	rs10497810	T	C	0.173	-0.017	0.002	5.90E-14	691404	BMI	BMI&Smoking	8.33E-05	58
6	154308095	rs10499275	C	G	0.165	0.015	0.002	3.40E-11	691027	BMI	BMI&Smoking	6.49E-05	45
3	12426936	rs10510419	T	G	0.142	-0.018	0.002	2.20E-14	789318	BMI	BMI-Only	7.50E-05	59
9	10387163	rs10732321	C	G	0.143	0.015	0.003	5.10E-09	678153	BMI	BMI-Only	4.96E-05	34
1	167280354	rs10733051	A	G	0.520	0.010	0.002	2.90E-09	781928	BMI	BMI-Only	4.70E-05	37
12	97586257	rs10745785	T	C	0.667	-0.011	0.002	1.20E-09	691086	BMI	BMI-Only	5.50E-05	38
9	29270224	rs10757826	A	G	0.325	0.011	0.002	3.00E-09	782972	BMI	BMI&Smoking	4.35E-05	34
17	15943910	rs1075901	T	C	0.436	-0.012	0.002	1.20E-13	794789	BMI	BMI-Only	7.20E-05	57
11	43936945	rs10768994	T	C	0.566	0.011	0.002	6.40E-12	791685	BMI	BMI-Only	5.68E-05	45
1	11284336	rs10779751	A	G	0.274	0.014	0.002	2.50E-14	794997	BMI	BMI-Only	7.50E-05	60
10	16759312	rs10795422	A	G	0.310	-0.014	0.002	9.30E-14	692108	BMI	BMI&Smoking	7.73E-05	54
9	92191256	rs10797115	T	C	0.537	0.012	0.002	9.90E-13	687215	BMI	BMI&Smoking	7.74E-05	53
2	161105876	rs10803762	A	G	0.678	0.012	0.002	3.50E-10	686227	BMI	BMI&Smoking	6.05E-05	42
9	23356935	rs10811901	A	G	0.559	0.011	0.002	2.50E-11	768325	BMI	BMI&Smoking	5.55E-05	43
9	126096522	rs10818810	A	G	0.391	0.013	0.002	1.10E-13	770877	BMI	BMI&Smoking	7.13E-05	55
9	127049237	rs10818938	A	G	0.422	0.011	0.002	5.10E-11	691410	BMI	BMI-Only	6.50E-05	45
10	76421216	rs10824218	A	T	0.552	0.012	0.002	7.20E-12	669278	BMI	BMI&Smoking	6.86E-05	46
11	89966202	rs10830452	A	G	0.671	-0.011	0.002	2.10E-09	690453	BMI	BMI-Only	5.51E-05	38
11	17394073	rs10832778	C	G	0.378	-0.013	0.002	1.30E-13	783042	BMI	BMI&Smoking	6.90E-05	54
11	45426141	rs10838465	A	C	0.697	0.014	0.002	9.10E-14	692129	BMI	BMI&Smoking	7.84E-05	54
11	2234690	rs10840606	A	G	0.826	-0.016	0.002	3.20E-12	642006	BMI	BMI-Only	7.27E-05	47
12	24060075	rs10842240	C	G	0.116	0.022	0.003	3.10E-16	691476	BMI	BMI&Smoking	9.43E-05	65
12	69642315	rs10878946	T	C	0.714	-0.014	0.002	3.60E-13	685707	BMI	BMI&Smoking	8.03E-05	55
10	102635475	rs10883553	A	C	0.451	0.012	0.002	1.90E-11	690191	BMI	BMI-Only	6.33E-05	44
10	104412049	rs10883759	A	G	0.302	-0.012	0.002	5.40E-12	791911	BMI	BMI&Smoking	5.80E-05	46
10	118672531	rs10886017	A	C	0.252	0.015	0.002	1.40E-15	786354	BMI	BMI&Smoking	8.14E-05	64
10	88096047	rs10887578	C	G	0.490	0.013	0.002	1.60E-13	679172	BMI	BMI-Only	8.35E-05	57
1	65906067	rs10889550	A	G	0.955	-0.024	0.004	1.90E-09	776629	BMI	BMI&Smoking	4.52E-05	35

1	225668524	rs10915840	A	G	0.283	-0.012	0.002	1.30E-09	684857	BMI	BMI-Only	5.63E-05	39
1	190239907	rs10920678	A	G	0.429	0.016	0.002	1.50E-21	788624	BMI	BMI-Only	1.19E-04	94
1	119546842	rs10923724	T	C	0.573	-0.012	0.002	6.40E-13	789514	BMI	BMI-Only	6.89E-05	54
2	6155557	rs10929925	A	C	0.430	-0.014	0.002	1.80E-18	787036	BMI	BMI&Smoking	1.01E-04	80
4	45182527	rs10938397	A	G	0.568	-0.032	0.002	3.40E-86	793518	BMI	BMI&Smoking	5.16E-04	410
4	18483405	rs10939792	C	G	0.671	-0.015	0.002	1.40E-15	636727	BMI	BMI-Only	1.01E-04	64
5	80841914	rs10942267	A	G	0.691	0.016	0.002	3.90E-17	689084	BMI	BMI-Only	9.78E-05	67
5	86172206	rs10942476	A	G	0.511	-0.010	0.002	9.50E-09	686324	BMI	BMI-Only	4.94E-05	34
9	16719445	rs10962549	T	C	0.168	0.020	0.002	2.50E-17	692271	BMI	BMI&Smoking	1.07E-04	74
9	33827694	rs10971721	T	C	0.109	-0.020	0.003	5.70E-13	686442	BMI	BMI&Smoking	7.36E-05	51
9	6954557	rs10975933	C	G	0.656	0.012	0.002	2.70E-11	683622	BMI	BMI-Only	6.72E-05	46
9	104396304	rs10989568	A	G	0.462	0.011	0.002	6.60E-10	688508	BMI	BMI-Only	5.75E-05	40
10	78760959	rs11001963	T	C	0.564	0.011	0.002	1.20E-09	678263	BMI	BMI&Smoking	5.31E-05	36
12	112610714	rs11066188	A	G	0.418	-0.012	0.002	8.10E-13	792755	BMI	BMI&Smoking	6.28E-05	50
16	20255123	rs11074446	T	C	0.869	0.023	0.002	1.80E-20	773181	BMI	BMI-Only	1.14E-04	88
16	62803841	rs11075489	T	C	0.483	-0.011	0.002	1.30E-10	688802	BMI	BMI&Smoking	6.19E-05	43
17	47090785	rs11079849	T	C	0.320	-0.019	0.002	4.80E-24	687694	BMI	BMI&Smoking	1.42E-04	98
19	31019780	rs11084553	A	G	0.848	0.021	0.002	1.80E-18	691103	BMI	BMI&Smoking	1.11E-04	77
22	38809485	rs11089885	T	C	0.538	-0.010	0.002	4.00E-09	687613	BMI	BMI-Only	4.76E-05	33
12	82465797	rs11115176	T	C	0.760	0.012	0.002	2.00E-10	792384	BMI	BMI&Smoking	5.12E-05	41
1	219633869	rs11118308	A	G	0.530	0.010	0.002	4.80E-10	794625	BMI	BMI-Only	5.01E-05	40
1	209211968	rs11119208	A	G	0.387	0.010	0.002	1.00E-08	793772	BMI	BMI-Only	3.93E-05	31
1	8708529	rs11121210	T	C	0.371	-0.011	0.002	1.30E-09	691172	BMI	BMI&Smoking	5.21E-05	36
3	35696096	rs11129662	A	G	0.669	-0.012	0.002	4.50E-11	688778	BMI	BMI&Smoking	6.56E-05	45
9	82240968	rs11138313	A	G	0.901	0.017	0.003	3.00E-09	680335	BMI	BMI-Only	5.35E-05	36
18	73498528	rs11150911	A	C	0.281	0.013	0.002	4.70E-13	781716	BMI	BMI-Only	6.98E-05	55
1	96924097	rs11165643	T	C	0.583	0.021	0.002	1.40E-35	792657	BMI	BMI&Smoking	1.85E-04	147
12	39430048	rs11170468	A	C	0.767	0.012	0.002	1.90E-10	795265	BMI	BMI&Smoking	5.27E-05	42
20	43428323	rs1117080	C	G	0.702	0.011	0.002	7.00E-09	690702	BMI	BMI&Smoking	4.85E-05	34
12	60953472	rs11173522	A	C	0.208	0.013	0.002	1.10E-09	691593	BMI	BMI-Only	5.37E-05	37
10	104846178	rs11191548	T	C	0.918	-0.027	0.003	5.00E-19	795416	BMI	BMI-Only	1.00E-04	80
10	2585792	rs11251352	A	G	0.401	-0.011	0.002	7.00E-10	690804	BMI	BMI-Only	5.31E-05	37

1	156406381	rs11264483	C	G	0.612	0.014	0.002	3.00E-14	655917	BMI	BMI&Smoking	8.83E-05	58
2	165528624	rs1128249	T	G	0.400	0.011	0.002	8.50E-12	795314	BMI	BMI-Only	5.56E-05	44
7	103417557	rs11496125	T	C	0.421	0.017	0.002	3.00E-22	684574	BMI	BMI-Only	1.44E-04	99
6	26100023	rs1150659	A	G	0.225	-0.014	0.002	3.80E-13	790405	BMI	BMI&Smoking	6.77E-05	54
22	18220831	rs11538	A	G	0.820	-0.014	0.002	3.30E-09	692349	BMI	BMI&Smoking	4.98E-05	34
1	38026600	rs11577094	T	C	0.081	0.018	0.003	6.90E-10	779686	BMI	BMI&Smoking	4.72E-05	37
1	155983710	rs11577179	A	G	0.372	-0.011	0.002	1.50E-10	790199	BMI	BMI-Only	5.11E-05	40
1	177383443	rs11581304	T	C	0.903	-0.018	0.003	7.10E-10	690730	BMI	BMI&Smoking	5.33E-05	37
4	173584086	rs1158684	A	G	0.509	0.010	0.002	9.10E-09	688147	BMI	BMI&Smoking	4.93E-05	34
18	40736590	rs1158805	A	C	0.377	-0.014	0.002	1.20E-14	691776	BMI	BMI&Smoking	8.37E-05	58
11	11765613	rs11604688	T	C	0.561	-0.010	0.002	3.60E-09	686104	BMI	BMI-Only	5.35E-05	37
12	939480	rs11611246	T	G	0.210	0.024	0.002	5.00E-32	779823	BMI	BMI&Smoking	1.85E-04	144
12	133426483	rs11614340	T	C	0.691	-0.013	0.002	8.50E-13	692325	BMI	BMI-Only	7.08E-05	49
15	66741387	rs11629783	C	G	0.769	0.015	0.002	9.80E-13	690824	BMI	BMI&Smoking	7.71E-05	53
15	63793238	rs11635675	T	G	0.647	0.012	0.002	1.30E-11	688719	BMI	BMI-Only	6.89E-05	47
17	56093061	rs11649864	A	G	0.091	0.018	0.003	6.70E-09	663638	BMI	BMI&Smoking	4.97E-05	33
18	53335512	rs11659764	A	T	0.053	-0.025	0.004	8.90E-11	690582	BMI	BMI-Only	6.09E-05	42
19	49650471	rs11670142	T	G	0.606	-0.011	0.002	4.70E-10	681469	BMI	BMI-Only	5.58E-05	38
19	46180184	rs11672660	T	C	0.205	-0.034	0.002	1.70E-60	768426	BMI	BMI&Smoking	3.41E-04	262
12	122462486	rs1169091	T	C	0.277	-0.011	0.002	6.90E-09	678299	BMI	BMI&Smoking	4.71E-05	32
3	49924424	rs11713193	A	G	0.507	0.024	0.002	2.40E-44	692159	BMI	BMI&Smoking	2.85E-04	198
4	147376805	rs11736228	A	T	0.741	0.014	0.002	4.10E-12	691580	BMI	BMI&Smoking	6.98E-05	48
5	105876806	rs11739877	T	C	0.612	0.012	0.002	6.60E-11	692540	BMI	BMI-Only	6.10E-05	42
6	20705590	rs11753081	T	G	0.825	0.014	0.002	8.90E-11	790084	BMI	BMI-Only	5.47E-05	43
6	141494602	rs11754747	T	C	0.261	0.012	0.002	1.40E-09	785058	BMI	BMI-Only	4.75E-05	37
8	23389571	rs11781222	T	C	0.871	0.016	0.002	5.30E-11	789828	BMI	BMI-Only	5.49E-05	43
9	14651283	rs11790280	T	C	0.614	-0.010	0.002	7.10E-09	684876	BMI	BMI-Only	4.78E-05	33
9	140646121	rs11792069	A	G	0.830	0.015	0.002	6.50E-10	644252	BMI	BMI-Only	5.67E-05	37
9	29672405	rs11792311	A	G	0.239	-0.014	0.002	1.30E-12	682503	BMI	BMI&Smoking	7.59E-05	52
15	78012618	rs11855853	T	C	0.265	-0.015	0.002	2.40E-13	682564	BMI	BMI&Smoking	7.70E-05	53
16	387867	rs11866815	T	C	0.246	-0.016	0.002	1.00E-16	792501	BMI	BMI&Smoking	8.51E-05	67
9	87293457	rs1187352	T	C	0.348	-0.012	0.002	6.00E-11	688522	BMI	BMI-Only	6.35E-05	44



19	18830704	rs11880870	A	G	0.520	0.019	0.002	1.00E-28	717350	BMI	BMI&Smoking	1.72E-04	124
2	220163543	rs11889536	A	G	0.851	0.019	0.002	6.40E-15	688977	BMI	BMI&Smoking	9.00E-05	62
3	70539559	rs11915371	A	C	0.796	-0.015	0.002	2.60E-12	690829	BMI	BMI&Smoking	7.29E-05	50
3	108188755	rs11917965	A	C	0.609	-0.012	0.002	7.20E-11	691306	BMI	BMI-Only	5.90E-05	41
4	65700865	rs11945861	A	G	0.237	-0.015	0.002	5.00E-13	682451	BMI	BMI-Only	8.02E-05	55
5	95861012	rs11951673	T	C	0.394	-0.012	0.002	1.10E-13	792278	BMI	BMI&Smoking	6.61E-05	52
3	138091140	rs1199334	A	G	0.188	0.014	0.002	7.30E-12	793336	BMI	BMI&Smoking	5.76E-05	46
1	112318484	rs12033257	A	G	0.617	0.015	0.002	2.40E-15	664083	BMI	BMI&Smoking	9.91E-05	66
1	107885018	rs12035149	C	G	0.777	-0.015	0.002	3.90E-12	691352	BMI	BMI-Only	6.99E-05	48
1	195047936	rs12041258	T	C	0.771	0.015	0.002	9.50E-13	688602	BMI	BMI-Only	7.74E-05	53
1	243533273	rs12042959	A	G	0.850	0.014	0.002	3.40E-09	685384	BMI	BMI-Only	5.25E-05	36
1	1708801	rs12044597	A	G	0.497	-0.014	0.002	1.70E-18	789125	BMI	BMI&Smoking	1.01E-04	80
1	80793118	rs12065553	A	G	0.707	-0.012	0.002	8.90E-10	691372	BMI	BMI&Smoking	5.30E-05	37
15	92570921	rs12101393	C	G	0.780	0.013	0.002	1.50E-09	689675	BMI	BMI&Smoking	5.30E-05	37
14	101144596	rs12147845	T	C	0.114	0.020	0.003	4.50E-13	687445	BMI	BMI&Smoking	7.90E-05	54
15	41995199	rs12148330	A	T	0.181	0.014	0.002	1.50E-10	692532	BMI	BMI-Only	6.02E-05	42
16	6728603	rs12149756	A	G	0.255	-0.013	0.002	3.70E-11	791455	BMI	BMI-Only	5.47E-05	43
17	34914787	rs12150665	T	C	0.594	0.016	0.002	1.60E-22	795501	BMI	BMI&Smoking	1.14E-04	91
13	28011963	rs1218822	A	G	0.666	0.017	0.002	1.90E-22	794711	BMI	BMI&Smoking	1.23E-04	98
5	50914726	rs12189178	T	C	0.038	0.036	0.005	2.20E-15	789640	BMI	BMI&Smoking	7.93E-05	63
6	100987009	rs12206564	T	C	0.505	-0.011	0.002	5.40E-11	689836	BMI	BMI&Smoking	6.40E-05	44
10	66590825	rs1227244	A	G	0.663	-0.011	0.002	1.00E-08	682133	BMI	BMI&Smoking	4.56E-05	31
12	90216146	rs12299814	A	C	0.253	-0.016	0.002	5.20E-15	687962	BMI	BMI&Smoking	8.96E-05	62
16	70368909	rs12325419	A	G	0.121	-0.019	0.003	1.40E-12	692572	BMI	BMI-Only	7.00E-05	48
11	134601012	rs12364470	T	G	0.837	-0.018	0.002	1.10E-15	787411	BMI	BMI&Smoking	8.31E-05	65
12	122963550	rs12369179	T	C	0.088	-0.036	0.003	2.50E-31	674260	BMI	BMI-Only	1.99E-04	134
12	14413931	rs12422552	C	G	0.266	-0.013	0.002	1.60E-11	689543	BMI	BMI&Smoking	6.51E-05	45
13	54102206	rs12429545	A	G	0.125	0.032	0.003	9.60E-38	778918	BMI	BMI&Smoking	2.05E-04	160
15	46584787	rs12439798	T	G	0.423	0.013	0.002	6.90E-13	690093	BMI	BMI&Smoking	7.83E-05	54
15	98282615	rs12439829	A	T	0.386	-0.011	0.002	1.10E-09	687407	BMI	BMI-Only	5.33E-05	37
16	19935389	rs12446632	A	G	0.142	-0.035	0.002	2.90E-50	788565	BMI	BMI-Only	2.73E-04	215
16	3599655	rs12448257	A	G	0.218	0.018	0.002	8.10E-20	779628	BMI	BMI&Smoking	1.09E-04	85

16	56489343	rs12448738	A	C	0.863	-0.017	0.003	2.80E-11	691932	BMI	BMI-Only	6.53E-05	45
16	77261943	rs12449219	C	G	0.864	-0.016	0.003	2.00E-09	688129	BMI	BMI-Only	5.16E-05	36
18	52500011	rs12454204	T	G	0.230	0.017	0.002	3.80E-17	691395	BMI	BMI&Smoking	1.07E-04	74
18	60845884	rs12454712	T	C	0.630	-0.014	0.002	4.40E-16	715252	BMI	BMI-Only	8.95E-05	64
2	26940294	rs12468863	T	C	0.524	-0.015	0.002	5.10E-21	784269	BMI	BMI-Only	1.17E-04	91
2	60203917	rs12476772	A	C	0.333	0.012	0.002	8.30E-12	690595	BMI	BMI&Smoking	6.76E-05	47
2	67841326	rs12477088	T	C	0.598	0.015	0.002	8.90E-17	690936	BMI	BMI-Only	1.05E-04	73
1	174478100	rs12564992	A	G	0.886	-0.020	0.003	5.30E-14	795119	BMI	BMI-Only	7.15E-05	57
15	81058652	rs12593036	A	G	0.701	0.015	0.002	3.80E-16	686055	BMI	BMI&Smoking	9.57E-05	66
15	62316035	rs12595158	T	C	0.024	-0.039	0.005	1.90E-13	775095	BMI	BMI-Only	6.87E-05	53
16	54152620	rs12597712	C	G	0.420	-0.011	0.002	1.40E-10	727187	BMI	BMI&Smoking	5.65E-05	41
17	65870073	rs12602912	T	C	0.205	0.018	0.002	9.90E-18	777510	BMI	BMI&Smoking	9.03E-05	70
2	27730940	rs1260326	T	C	0.403	-0.011	0.002	3.90E-10	784462	BMI	BMI-Only	4.86E-05	38
22	38317137	rs12628891	T	C	0.317	-0.011	0.002	3.00E-09	686575	BMI	BMI-Only	5.06E-05	35
3	119618053	rs12629015	A	G	0.815	0.014	0.002	2.10E-09	691059	BMI	BMI&Smoking	4.99E-05	34
3	136300927	rs12630999	A	G	0.747	0.018	0.002	8.50E-21	789241	BMI	BMI&Smoking	1.07E-04	85
2	207956108	rs1263618	T	C	0.686	-0.012	0.002	5.30E-12	790501	BMI	BMI&Smoking	6.30E-05	50
8	132879047	rs12675063	A	T	0.887	-0.016	0.003	1.30E-09	789771	BMI	BMI-Only	4.56E-05	36
8	95582606	rs12680842	A	G	0.680	0.013	0.002	4.40E-14	782549	BMI	BMI&Smoking	6.98E-05	55
7	114332246	rs12705977	T	G	0.455	0.013	0.002	2.10E-14	691748	BMI	BMI&Smoking	8.71E-05	60
10	33969931	rs12762034	T	C	0.924	-0.024	0.003	7.30E-14	692191	BMI	BMI-Only	8.13E-05	56
10	19776828	rs12776880	A	T	0.683	0.013	0.002	3.00E-11	676100	BMI	BMI-Only	6.71E-05	45
10	18554623	rs1277723	A	G	0.776	0.011	0.002	1.00E-08	784894	BMI	BMI-Only	4.07E-05	32
10	27312657	rs12779943	T	C	0.082	0.021	0.003	2.00E-11	692211	BMI	BMI-Only	6.40E-05	44
17	77796889	rs1285245	C	G	0.367	-0.012	0.002	1.70E-11	687342	BMI	BMI&Smoking	6.57E-05	45
13	112218924	rs12868881	A	T	0.420	0.013	0.002	1.70E-13	690036	BMI	BMI&Smoking	8.22E-05	57
14	29736838	rs12885454	A	C	0.343	-0.019	0.002	2.40E-27	793069	BMI	BMI&Smoking	1.49E-04	118
14	88308044	rs12888545	A	G	0.748	-0.014	0.002	9.10E-12	688605	BMI	BMI-Only	6.71E-05	46
15	99521883	rs12905439	C	G	0.661	0.012	0.002	1.40E-10	675205	BMI	BMI-Only	6.36E-05	43
16	82438337	rs12922346	C	G	0.266	0.014	0.002	1.00E-11	679615	BMI	BMI&Smoking	6.80E-05	46
17	78611724	rs12939549	A	G	0.567	0.018	0.002	2.70E-28	793950	BMI	BMI-Only	1.59E-04	127
4	137083193	rs1296328	A	C	0.434	0.018	0.002	4.90E-24	683488	BMI	BMI&Smoking	1.45E-04	99

18	21116998	rs12964689	A	G	0.518	0.020	0.002	5.10E-32	692097	BMI	BMI&Smoking	2.06E-04	143
2	207197155	rs12989476	T	C	0.352	0.013	0.002	5.00E-13	687666	BMI	BMI-Only	7.58E-05	52
2	47010742	rs13012099	A	G	0.341	-0.014	0.002	1.20E-14	686541	BMI	BMI&Smoking	8.81E-05	60
2	632348	rs13021737	A	G	0.168	-0.057	0.002	#####	789534	BMI	BMI&Smoking	9.45E-04	747
13	65479449	rs1304070	A	G	0.762	0.013	0.002	3.70E-10	691747	BMI	BMI&Smoking	5.74E-05	40
21	40309436	rs13047416	C	G	0.623	0.015	0.002	2.20E-17	683228	BMI	BMI&Smoking	1.07E-04	73
3	123220264	rs13063194	T	C	0.794	-0.014	0.002	1.10E-11	692089	BMI	BMI&Smoking	6.79E-05	47
4	30736301	rs13105058	T	C	0.325	0.011	0.002	3.10E-09	686820	BMI	BMI-Only	5.34E-05	37
4	103188709	rs13107325	T	C	0.074	0.047	0.003	1.10E-47	792045	BMI	BMI&Smoking	2.72E-04	216
4	162129844	rs13110266	A	G	0.407	-0.012	0.002	1.90E-12	791087	BMI	BMI&Smoking	5.99E-05	47
5	71494931	rs13153166	A	C	0.955	0.023	0.004	8.10E-09	724781	BMI	BMI-Only	4.64E-05	34
5	106385815	rs13168288	A	G	0.750	0.013	0.002	6.40E-11	706550	BMI	BMI-Only	6.26E-05	44
5	139080745	rs13174863	A	G	0.845	-0.019	0.002	2.90E-16	773762	BMI	BMI&Smoking	9.01E-05	70
5	122734005	rs13184896	T	G	0.435	-0.013	0.002	3.30E-16	794825	BMI	BMI-Only	8.69E-05	69
6	163033350	rs13191362	A	G	0.880	0.024	0.003	5.90E-21	792699	BMI	BMI-Only	1.12E-04	89
6	137675541	rs13201877	A	G	0.860	-0.015	0.002	2.70E-10	790570	BMI	BMI-Only	5.07E-05	40
3	131758077	rs1320903	A	G	0.317	0.022	0.002	9.20E-32	691519	BMI	BMI-Only	2.08E-04	144
6	97753223	rs13209872	C	G	0.340	-0.015	0.002	1.40E-16	686531	BMI	BMI&Smoking	1.04E-04	71
6	126089285	rs13209968	C	G	0.518	0.011	0.002	3.10E-11	692069	BMI	BMI-Only	6.50E-05	45
7	113353254	rs13227658	T	C	0.553	-0.016	0.002	1.70E-19	688960	BMI	BMI&Smoking	1.24E-04	85
7	99064466	rs13240600	A	G	0.845	0.020	0.002	3.50E-17	692233	BMI	BMI&Smoking	1.04E-04	72
8	112270826	rs13250058	T	G	0.677	0.011	0.002	2.90E-10	787870	BMI	BMI&Smoking	4.91E-05	39
8	14095900	rs13263601	A	C	0.652	-0.015	0.002	2.20E-17	686196	BMI	BMI&Smoking	1.07E-04	73
8	64705462	rs13266989	C	G	0.599	0.011	0.002	3.80E-10	688625	BMI	BMI&Smoking	5.42E-05	37
9	37183628	rs13290794	A	G	0.358	-0.014	0.002	1.90E-15	688742	BMI	BMI&Smoking	8.91E-05	61
9	129467340	rs13292976	T	C	0.446	0.013	0.002	3.10E-14	692152	BMI	BMI&Smoking	8.58E-05	59
9	13941513	rs13298062	A	G	0.798	0.014	0.002	3.80E-10	689794	BMI	BMI-Only	5.62E-05	39
13	86536006	rs1330052	C	G	0.650	-0.013	0.002	1.50E-13	691613	BMI	BMI-Only	7.78E-05	54
15	68104367	rs13329567	T	C	0.231	-0.029	0.002	1.00E-50	793953	BMI	BMI&Smoking	2.70E-04	215
13	40784814	rs1336486	T	G	0.680	-0.014	0.002	1.80E-14	688180	BMI	BMI-Only	8.92E-05	61
15	79378821	rs13380104	T	C	0.418	-0.014	0.002	7.70E-15	691892	BMI	BMI&Smoking	9.25E-05	64
2	62848319	rs13417156	T	C	0.564	-0.014	0.002	2.60E-17	741230	BMI	BMI&Smoking	9.68E-05	72

2	44776597	rs13425435	A	C	0.667	0.012	0.002	2.70E-11	689264	BMI	BMI&Smoking	6.45E-05	44
2	56603985	rs13432055	T	C	0.714	-0.012	0.002	8.90E-11	790223	BMI	BMI-Only	5.35E-05	42
2	57335044	rs1345942	T	C	0.628	-0.010	0.002	5.20E-09	689852	BMI	BMI-Only	4.84E-05	33
6	43764551	rs1358980	T	C	0.478	-0.013	0.002	1.10E-13	770323	BMI	BMI&Smoking	7.02E-05	54
1	96289734	rs1361739	A	G	0.326	-0.018	0.002	6.90E-22	689358	BMI	BMI-Only	1.39E-04	96
5	130378027	rs1363695	T	C	0.232	-0.013	0.002	3.30E-10	683063	BMI	BMI&Smoking	5.61E-05	38
18	36182440	rs1365466	T	C	0.741	-0.014	0.002	3.30E-13	791868	BMI	BMI&Smoking	6.57E-05	52
2	81816251	rs1371108	A	C	0.325	0.012	0.002	9.00E-11	684620	BMI	BMI&Smoking	6.38E-05	44
22	32182708	rs138289	A	T	0.517	0.010	0.002	3.30E-09	687258	BMI	BMI&Smoking	5.34E-05	37
13	62683659	rs1394879	C	G	0.417	0.010	0.002	6.20E-09	692138	BMI	BMI-Only	5.10E-05	35
12	19312221	rs1399471	C	G	0.261	-0.013	0.002	2.70E-11	689884	BMI	BMI&Smoking	6.22E-05	43
5	113987898	rs1402025	T	C	0.773	-0.012	0.002	3.60E-09	690061	BMI	BMI&Smoking	4.81E-05	33
20	21381121	rs1409818	T	C	0.116	0.020	0.003	2.50E-12	690984	BMI	BMI-Only	6.95E-05	48
9	28410996	rs1412235	C	G	0.318	0.025	0.002	6.00E-45	790147	BMI	BMI-Only	2.65E-04	209
12	97913785	rs1420341	T	C	0.820	-0.014	0.002	2.10E-09	685497	BMI	BMI&Smoking	5.25E-05	36
8	30865733	rs1421334	A	C	0.457	0.013	0.002	1.00E-12	680665	BMI	BMI-Only	7.08E-05	48
18	58227112	rs1430387	T	C	0.571	0.011	0.002	5.80E-11	689325	BMI	BMI-Only	6.52E-05	45
8	73439070	rs1431659	A	G	0.266	0.020	0.002	6.00E-24	689739	BMI	BMI&Smoking	1.54E-04	106
3	104606144	rs1436344	C	G	0.592	0.014	0.002	4.10E-16	692017	BMI	BMI&Smoking	9.94E-05	69
3	62481063	rs1452075	T	C	0.728	0.014	0.002	1.30E-14	783729	BMI	BMI&Smoking	7.83E-05	61
3	94038085	rs1454687	C	G	0.477	0.020	0.002	5.20E-32	692324	BMI	BMI&Smoking	2.04E-04	141
4	145986668	rs1455137	A	C	0.620	-0.011	0.002	4.40E-10	792826	BMI	BMI-Only	4.90E-05	39
11	76473138	rs1465900	A	C	0.781	0.013	0.002	4.80E-10	779748	BMI	BMI-Only	5.01E-05	39
13	98129710	rs1467693	A	T	0.292	0.011	0.002	1.20E-09	686978	BMI	BMI-Only	5.24E-05	36
3	161446055	rs1476322	A	G	0.569	0.010	0.002	5.00E-09	692523	BMI	BMI-Only	5.10E-05	35
16	53712135	rs1477199	A	G	0.855	-0.023	0.002	9.40E-22	794442	BMI	BMI-Only	1.14E-04	90
4	94409429	rs1485038	T	C	0.797	0.014	0.002	7.40E-11	683869	BMI	BMI-Only	6.18E-05	42
5	63020706	rs1503526	T	C	0.516	-0.014	0.002	5.50E-17	747347	BMI	BMI&Smoking	9.07E-05	68
6	23868594	rs1511471	A	G	0.317	0.011	0.002	9.90E-10	688880	BMI	BMI-Only	5.13E-05	35
3	86251199	rs1512914	T	G	0.611	-0.013	0.002	8.10E-13	689895	BMI	BMI&Smoking	7.10E-05	49
2	165427825	rs1521527	C	G	0.532	-0.012	0.002	3.10E-12	678175	BMI	BMI-Only	7.47E-05	51
4	171632637	rs1522569	T	G	0.818	0.016	0.002	2.90E-13	689573	BMI	BMI-Only	8.06E-05	56

3	77667044	rs1523768	A	G	0.680	-0.011	0.002	2.60E-10	794306	BMI	BMI&Smoking	5.27E-05	42
7	109173130	rs1524277	T	C	0.519	-0.011	0.002	2.20E-09	633568	BMI	BMI&Smoking	5.47E-05	35
8	77305592	rs1526665	T	C	0.407	-0.012	0.002	4.70E-11	691622	BMI	BMI-Only	6.11E-05	42
2	181550962	rs1528435	T	C	0.633	0.016	0.002	9.10E-23	794198	BMI	BMI&Smoking	1.17E-04	93
7	77417584	rs1544459	T	C	0.546	-0.010	0.002	2.20E-10	795359	BMI	BMI&Smoking	5.21E-05	41
3	8138041	rs1554194	C	G	0.529	0.010	0.002	3.40E-09	686099	BMI	BMI&Smoking	5.35E-05	37
6	46398004	rs1554790	C	G	0.518	-0.013	0.002	6.80E-14	689945	BMI	BMI-Only	8.35E-05	58
6	104805862	rs155510	T	G	0.809	0.017	0.002	1.70E-14	692226	BMI	BMI&Smoking	8.92E-05	62
6	40371918	rs1579557	T	C	0.300	0.021	0.002	1.10E-29	692405	BMI	BMI&Smoking	1.81E-04	126
12	23559163	rs1584121	A	G	0.191	-0.013	0.002	6.00E-09	692007	BMI	BMI-Only	4.74E-05	33
5	94206202	rs159032	T	C	0.244	0.013	0.002	1.90E-10	682583	BMI	BMI&Smoking	6.09E-05	42
18	947954	rs1608445	A	G	0.435	-0.010	0.002	3.70E-09	683383	BMI	BMI-Only	4.88E-05	33
11	131957293	rs1625427	T	C	0.650	0.013	0.002	1.40E-12	676334	BMI	BMI&Smoking	7.71E-05	52
9	81334684	rs1634350	A	C	0.421	0.012	0.002	7.60E-12	681977	BMI	BMI&Smoking	6.52E-05	44
8	4288577	rs1658820	T	G	0.247	0.014	0.002	5.90E-12	669427	BMI	Not available in the tobacco use GWAS	6.73E-05	45
13	78371890	rs1668633	T	C	0.574	0.010	0.002	8.70E-09	688791	BMI	BMI&Smoking	5.02E-05	35
3	182262873	rs16833232	T	C	0.312	-0.011	0.002	4.60E-09	688579	BMI	BMI&Smoking	4.78E-05	33
2	212291371	rs16846136	A	C	0.268	0.013	0.002	3.20E-11	687229	BMI	BMI-Only	6.71E-05	46
3	141275436	rs16851483	T	G	0.069	0.037	0.004	3.20E-26	692316	BMI	BMI-Only	1.61E-04	111
5	88799143	rs16867703	T	G	0.634	-0.014	0.002	1.40E-14	692118	BMI	BMI&Smoking	8.37E-05	58
5	3488462	rs16871902	A	G	0.488	0.013	0.002	4.60E-13	690830	BMI	BMI&Smoking	7.83E-05	54
6	90322237	rs16882001	A	G	0.949	-0.027	0.004	1.50E-11	687690	BMI	BMI-Only	6.58E-05	45
12	89758046	rs1689437	A	G	0.934	-0.025	0.003	2.10E-13	781932	BMI	BMI-Only	6.97E-05	54
5	87978252	rs16903285	T	C	0.859	-0.033	0.003	7.60E-38	687944	BMI	BMI&Smoking	2.36E-04	162
8	138215228	rs16906845	A	G	0.067	-0.023	0.004	2.20E-09	692124	BMI	BMI-Only	5.07E-05	35
8	81375457	rs16907751	T	C	0.105	-0.021	0.003	1.60E-12	776010	BMI	BMI&Smoking	6.25E-05	49
8	67202787	rs16932761	A	G	0.254	-0.014	0.002	1.70E-12	685108	BMI	BMI-Only	7.15E-05	49
18	22137319	rs16940823	A	C	0.191	-0.015	0.002	9.00E-11	684252	BMI	BMI&Smoking	5.89E-05	40
12	114337645	rs16943356	A	G	0.068	-0.020	0.003	3.00E-09	690481	BMI	BMI&Smoking	5.21E-05	36
15	53143170	rs16965225	T	G	0.067	0.022	0.003	1.70E-10	778398	BMI	BMI-Only	5.18E-05	40
17	39573713	rs16966801	A	G	0.798	-0.016	0.002	1.10E-12	692286	BMI	BMI-Only	7.26E-05	50
19	18500722	rs16982345	A	G	0.249	0.012	0.002	2.80E-09	649326	BMI	BMI&Smoking	5.73E-05	37

4	77096118	rs17001561	A	G	0.157	0.015	0.002	3.80E-11	794327	BMI	BMI&Smoking	5.43E-05	43
1	209543560	rs17014375	T	G	0.865	-0.017	0.003	1.10E-11	690856	BMI	BMI-Only	6.85E-05	47
2	36783599	rs17019087	T	C	0.640	-0.011	0.002	7.80E-10	692233	BMI	BMI-Only	5.30E-05	37
5	158271680	rs17056301	T	C	0.736	-0.012	0.002	2.40E-09	688085	BMI	BMI-Only	5.06E-05	35
18	58040624	rs17066842	A	G	0.041	-0.068	0.004	6.00E-57	766762	BMI	BMI&Smoking	3.38E-04	259
1	46505147	rs1707322	A	G	0.294	-0.013	0.002	4.90E-13	795381	BMI	BMI&Smoking	6.36E-05	51
10	102395440	rs17094222	T	C	0.796	-0.018	0.002	2.20E-19	791705	BMI	BMI&Smoking	1.03E-04	82
14	77529783	rs17105272	T	C	0.319	0.011	0.002	3.20E-09	681028	BMI	BMI&Smoking	4.92E-05	34
11	116996345	rs17120344	A	G	0.059	0.022	0.004	1.50E-09	691321	BMI	BMI&Smoking	5.30E-05	37
2	208255518	rs17203016	A	G	0.804	-0.015	0.002	2.10E-13	786272	BMI	BMI&Smoking	7.15E-05	56
7	75101065	rs17207196	T	C	0.412	-0.022	0.002	2.10E-35	668894	BMI	BMI&Smoking	2.25E-04	151
15	59002755	rs17236194	T	C	0.866	-0.015	0.002	8.30E-11	790933	BMI	BMI&Smoking	5.14E-05	41
20	15085365	rs17272434	A	G	0.312	-0.011	0.002	3.70E-09	789375	BMI	BMI-Only	4.31E-05	34
1	107617707	rs1730859	A	G	0.658	-0.012	0.002	1.10E-11	788691	BMI	BMI&Smoking	6.11E-05	48
11	27526105	rs17309825	T	C	0.960	-0.031	0.004	6.80E-14	786406	BMI	BMI&Smoking	7.02E-05	55
2	35512183	rs17327461	T	C	0.450	0.013	0.002	1.50E-14	792231	BMI	BMI-Only	7.70E-05	61
1	78623626	rs17391694	T	C	0.119	0.032	0.003	7.50E-38	767720	BMI	BMI&Smoking	2.09E-04	161
8	76806584	rs17405819	T	C	0.699	0.022	0.002	4.30E-33	795493	BMI	BMI-Only	1.79E-04	143
1	57846394	rs17424278	A	C	0.895	-0.017	0.003	1.90E-09	680073	BMI	BMI-Only	5.42E-05	37
8	27167942	rs17446091	T	C	0.793	-0.012	0.002	1.80E-09	793600	BMI	BMI&Smoking	4.77E-05	38
6	97385975	rs17448885	C	G	0.654	0.011	0.002	7.30E-09	689962	BMI	BMI-Only	4.93E-05	34
8	118895712	rs17450772	T	C	0.888	-0.019	0.003	2.90E-10	525306	BMI	BMI-Only	7.56E-05	40
19	30286822	rs17513613	T	C	0.676	-0.019	0.002	3.60E-26	789575	BMI	BMI&Smoking	1.35E-04	107
22	20116015	rs175165	T	G	0.606	0.010	0.002	5.20E-09	690545	BMI	BMI-Only	4.74E-05	33
1	107977075	rs17531363	A	C	0.697	0.013	0.002	2.00E-12	687883	BMI	BMI-Only	7.12E-05	49
4	163038241	rs17538472	T	C	0.191	0.013	0.002	4.20E-09	675963	BMI	BMI-Only	5.09E-05	34
2	142293146	rs17551974	A	C	0.178	-0.014	0.002	1.90E-10	691115	BMI	BMI&Smoking	5.94E-05	41
4	44955488	rs17573940	A	G	0.708	-0.011	0.002	8.00E-10	785117	BMI	BMI&Smoking	5.02E-05	39
17	41353410	rs17599948	A	G	0.833	0.013	0.002	4.60E-09	781803	BMI	BMI-Only	4.47E-05	35
12	110046698	rs17608150	T	C	0.075	0.020	0.003	1.30E-10	791472	BMI	BMI-Only	5.05E-05	40
3	114417675	rs17619973	A	G	0.925	0.020	0.003	2.40E-10	781150	BMI	BMI-Only	5.00E-05	39
10	126594078	rs17636031	T	C	0.730	-0.016	0.002	1.20E-17	782807	BMI	BMI-Only	9.06E-05	71

17	9792872	rs17681708	T	C	0.688	-0.011	0.002	7.20E-09	692361	BMI	BMI&Smoking	5.01E-05	35
5	173337853	rs17695092	T	G	0.692	0.011	0.002	3.40E-09	775102	BMI	BMI&Smoking	4.47E-05	35
12	116065057	rs17709991	T	C	0.732	-0.011	0.002	2.40E-09	785052	BMI	BMI-Only	4.76E-05	37
9	31030917	rs17720922	T	C	0.190	0.013	0.002	2.30E-09	692347	BMI	BMI&Smoking	5.12E-05	35
19	18454825	rs17724992	A	G	0.740	0.018	0.002	1.00E-22	785851	BMI	BMI&Smoking	1.18E-04	93
6	38214150	rs17757975	T	C	0.852	0.014	0.002	4.20E-09	690716	BMI	BMI-Only	5.14E-05	36
3	11640481	rs17776719	A	G	0.854	-0.017	0.003	1.70E-11	688708	BMI	BMI-Only	6.48E-05	45
6	100600097	rs17789218	T	C	0.761	-0.013	0.002	7.40E-12	793904	BMI	BMI&Smoking	5.90E-05	47
20	51107290	rs17806379	T	C	0.179	-0.026	0.002	1.50E-30	690043	BMI	BMI&Smoking	1.99E-04	138
9	11831420	rs17820822	T	G	0.645	0.014	0.002	2.90E-15	690065	BMI	BMI-Only	9.15E-05	63
11	118938371	rs1784460	A	T	0.404	0.013	0.002	9.00E-14	680042	BMI	BMI&Smoking	7.91E-05	54
18	76742544	rs1787267	C	G	0.063	-0.024	0.004	3.40E-11	692092	BMI	BMI-Only	6.26E-05	43
7	138794149	rs1814170	A	T	0.895	0.020	0.003	2.10E-12	686628	BMI	BMI-Only	7.14E-05	49
15	76107730	rs1829130	T	C	0.678	-0.011	0.002	3.70E-09	689024	BMI	BMI-Only	4.86E-05	34
7	6718674	rs1830074	T	C	0.712	-0.012	0.002	1.40E-09	689911	BMI	BMI-Only	5.31E-05	37
3	78830840	rs1840969	A	T	0.591	-0.011	0.002	1.90E-09	688490	BMI	BMI-Only	5.04E-05	35
7	77829768	rs1852006	A	G	0.352	-0.016	0.002	4.90E-18	692290	BMI	BMI&Smoking	1.08E-04	75
6	87606842	rs1853639	A	G	0.636	-0.011	0.002	1.20E-09	673714	BMI	BMI-Only	5.64E-05	38
4	95991417	rs1863652	A	G	0.345	-0.012	0.002	1.40E-10	692539	BMI	BMI&Smoking	5.89E-05	41
9	8845911	rs1865341	T	C	0.758	0.013	0.002	2.50E-10	688863	BMI	BMI&Smoking	5.95E-05	41
16	4930100	rs1876359	T	C	0.360	0.013	0.002	1.50E-14	792860	BMI	BMI-Only	7.37E-05	58
20	1410582	rs1884389	T	C	0.429	-0.010	0.002	4.00E-09	683669	BMI	BMI-Only	5.37E-05	37
20	6612832	rs1884897	A	G	0.369	-0.019	0.002	1.30E-30	789534	BMI	BMI-Only	1.65E-04	130
6	5977833	rs1885728	A	G	0.679	0.011	0.002	1.00E-08	682316	BMI	BMI&Smoking	4.74E-05	32
12	108376269	rs1895957	T	G	0.222	-0.017	0.002	1.40E-16	686069	BMI	BMI&Smoking	9.66E-05	66
7	121964349	rs1899689	T	C	0.399	0.012	0.002	1.50E-12	794654	BMI	BMI&Smoking	6.73E-05	53
8	93240419	rs1899898	T	C	0.680	0.011	0.002	6.80E-10	692601	BMI	BMI&Smoking	5.69E-05	39
4	91253956	rs1903579	C	G	0.550	0.011	0.002	1.10E-10	690564	BMI	BMI-Only	6.17E-05	43
3	62100840	rs1911746	T	C	0.214	0.012	0.002	1.60E-09	794477	BMI	BMI&Smoking	4.77E-05	38
15	47914691	rs1912631	A	G	0.409	-0.012	0.002	1.30E-11	685439	BMI	BMI&Smoking	6.38E-05	44
13	96922191	rs1927790	T	C	0.589	-0.015	0.002	1.80E-19	794326	BMI	BMI&Smoking	1.08E-04	86
9	120378483	rs1928295	T	C	0.554	0.014	0.002	5.40E-18	793649	BMI	BMI&Smoking	9.78E-05	78

10	53680085	rs1937684	A	T	0.659	0.011	0.002	8.70E-10	690063	BMI	BMI&Smoking	5.61E-05	39
11	133125329	rs1941213	A	C	0.724	0.012	0.002	3.20E-09	681106	BMI	BMI&Smoking	5.02E-05	34
18	31251276	rs1941697	A	G	0.454	0.012	0.002	1.20E-12	692446	BMI	BMI&Smoking	7.56E-05	52
14	91512339	rs1951455	T	C	0.275	-0.015	0.002	4.50E-14	690040	BMI	BMI&Smoking	8.44E-05	58
14	40801751	rs1955540	T	C	0.192	-0.016	0.002	6.20E-13	690251	BMI	BMI-Only	7.47E-05	52
14	40102072	rs1956153	A	T	0.821	-0.013	0.002	6.80E-09	692473	BMI	BMI-Only	5.04E-05	35
21	42653237	rs1964927	A	G	0.362	-0.012	0.002	5.00E-12	685665	BMI	BMI&Smoking	6.92E-05	47
8	28021769	rs1982441	T	G	0.138	0.018	0.003	7.00E-12	687705	BMI	BMI-Only	6.59E-05	45
1	72838529	rs1993709	A	G	0.182	-0.033	0.002	1.90E-57	786001	BMI	BMI&Smoking	3.16E-04	248
5	92415111	rs2009416	T	C	0.361	-0.012	0.002	1.10E-11	691741	BMI	BMI&Smoking	6.53E-05	45
14	103862322	rs2010281	A	G	0.355	-0.016	0.002	6.70E-21	794009	BMI	BMI&Smoking	1.13E-04	90
16	81728081	rs2012502	A	C	0.372	0.011	0.002	4.20E-11	783779	BMI	BMI-Only	5.64E-05	44
16	23849839	rs2023671	T	G	0.748	-0.012	0.002	5.80E-10	691845	BMI	BMI&Smoking	5.38E-05	37
3	53767689	rs2029331	C	G	0.245	-0.014	0.002	2.00E-12	690567	BMI	BMI-Only	7.10E-05	49
3	173683791	rs2035831	C	G	0.339	-0.011	0.002	5.50E-09	674163	BMI	BMI-Only	5.34E-05	36
4	3298800	rs2051559	T	C	0.869	-0.018	0.003	5.00E-12	689307	BMI	BMI&Smoking	6.65E-05	46
2	41712849	rs2063177	A	G	0.354	0.012	0.002	1.60E-11	687196	BMI	BMI-Only	6.47E-05	44
11	30422068	rs2065418	T	G	0.638	0.017	0.002	3.60E-20	691707	BMI	BMI&Smoking	1.23E-04	85
19	1970021	rs2074881	T	C	0.124	-0.016	0.002	4.90E-11	682201	BMI	BMI&Smoking	6.11E-05	42
19	45395619	rs2075650	A	G	0.861	0.024	0.002	1.50E-25	779741	BMI	BMI&Smoking	1.44E-04	113
17	46252346	rs208015	T	C	0.078	0.036	0.003	1.40E-25	691575	BMI	BMI-Only	1.59E-04	110
16	49062590	rs2080454	A	C	0.621	-0.013	0.002	1.70E-14	784784	BMI	BMI-Only	7.34E-05	58
8	28118130	rs2100814	A	G	0.410	0.011	0.002	1.20E-10	683658	BMI	BMI-Only	6.46E-05	44
2	151224579	rs2119753	A	G	0.611	0.010	0.002	6.80E-09	684462	BMI	BMI-Only	4.69E-05	32
3	85866335	rs2122042	T	G	0.206	0.024	0.002	2.30E-31	793383	BMI	BMI&Smoking	1.74E-04	138
3	123093541	rs2124499	C	G	0.372	-0.012	0.002	3.40E-13	785955	BMI	BMI&Smoking	6.66E-05	52
7	26856230	rs213533	A	C	0.857	-0.016	0.003	4.80E-10	688928	BMI	BMI&Smoking	5.65E-05	39
20	41987392	rs2143253	A	G	0.119	-0.019	0.003	1.10E-12	684760	BMI	BMI&Smoking	7.63E-05	52
20	49781718	rs2143624	A	G	0.368	0.010	0.002	4.80E-09	793865	BMI	BMI-Only	4.19E-05	33
11	112912947	rs2155645	T	C	0.261	-0.012	0.002	7.10E-10	789736	BMI	BMI&Smoking	4.72E-05	37
7	32369148	rs215634	A	G	0.379	0.015	0.002	2.60E-17	681296	BMI	BMI&Smoking	1.05E-04	71
2	230817437	rs2162524	T	C	0.668	-0.016	0.002	4.10E-17	691302	BMI	BMI-Only	1.07E-04	74



10	65314711	rs2163188	C	G	0.474	0.013	0.002	2.00E-14	686502	BMI	BMI&Smoking	8.65E-05	59
8	74689288	rs2170382	T	C	0.120	0.017	0.003	2.40E-10	690485	BMI	BMI-Only	5.88E-05	41
9	73791849	rs2174307	C	G	0.407	0.012	0.002	4.90E-12	686559	BMI	BMI&Smoking	7.38E-05	51
8	89408196	rs2174367	T	G	0.314	-0.012	0.002	9.30E-11	684335	BMI	BMI-Only	5.93E-05	41
14	62360464	rs217671	A	G	0.728	-0.014	0.002	1.30E-13	691456	BMI	BMI&Smoking	8.31E-05	57
6	153381622	rs2185027	A	C	0.703	-0.014	0.002	5.00E-14	791606	BMI	BMI&Smoking	7.11E-05	56
5	144484261	rs2190788	T	G	0.311	0.014	0.002	2.90E-14	683650	BMI	BMI&Smoking	8.05E-05	55
4	55505360	rs2192158	A	G	0.460	0.013	0.002	8.30E-14	690727	BMI	BMI&Smoking	8.34E-05	58
2	60814466	rs2195086	T	G	0.841	-0.013	0.002	9.40E-09	687371	BMI	BMI&Smoking	4.86E-05	33
13	89131240	rs2198679	A	G	0.532	0.011	0.002	5.60E-10	688014	BMI	BMI&Smoking	5.76E-05	40
6	12124855	rs2228213	A	G	0.348	-0.014	0.002	4.60E-16	795595	BMI	BMI&Smoking	8.40E-05	67
11	32131303	rs223051	T	C	0.676	0.011	0.002	1.10E-09	689456	BMI	BMI-Only	5.62E-05	39
4	103748224	rs223391	A	G	0.195	-0.013	0.002	1.60E-10	793455	BMI	BMI&Smoking	4.90E-05	39
1	6713114	rs2235564	T	C	0.347	0.013	0.002	3.70E-13	691544	BMI	BMI-Only	7.66E-05	53
7	76608143	rs2245368	T	C	0.826	-0.026	0.002	4.90E-28	678119	BMI	BMI-Only	1.84E-04	125
6	131898208	rs2246012	T	C	0.837	-0.016	0.002	3.10E-13	795598	BMI	BMI&Smoking	6.48E-05	52
12	99611659	rs2246664	A	G	0.366	0.014	0.002	1.80E-14	691039	BMI	BMI&Smoking	8.38E-05	58
1	39703114	rs2254542	A	C	0.042	-0.024	0.004	1.10E-09	790396	BMI	BMI&Smoking	4.59E-05	36
12	47471439	rs2269828	A	G	0.332	-0.011	0.002	4.40E-09	781589	BMI	BMI-Only	4.35E-05	34
3	124692689	rs2270778	T	C	0.584	-0.010	0.002	4.30E-09	794903	BMI	BMI-Only	4.10E-05	33
12	56494991	rs2271189	A	G	0.405	-0.014	0.002	5.00E-16	675192	BMI	BMI&Smoking	9.48E-05	64
17	7792465	rs2279620	C	G	0.104	0.017	0.003	1.60E-09	674410	BMI	BMI-Only	5.47E-05	37
6	33771673	rs2281819	A	T	0.230	-0.016	0.002	5.10E-15	687785	BMI	BMI&Smoking	9.30E-05	64
1	39569571	rs2282231	T	C	0.225	0.017	0.002	4.80E-15	689443	BMI	BMI&Smoking	8.95E-05	62
5	139712239	rs2282802	A	G	0.555	0.011	0.002	4.00E-10	685481	BMI	BMI-Only	6.00E-05	41
7	126721231	rs2283093	T	C	0.207	0.013	0.002	3.10E-09	691773	BMI	BMI&Smoking	5.29E-05	37
7	44804225	rs2289379	T	C	0.398	-0.014	0.002	4.30E-14	681639	BMI	BMI&Smoking	8.25E-05	56
3	184044433	rs2293605	T	C	0.131	-0.017	0.003	3.60E-10	668940	BMI	BMI&Smoking	5.72E-05	38
19	19789528	rs2304130	A	G	0.915	0.018	0.003	2.90E-09	783847	BMI	BMI-Only	4.39E-05	34
5	75003678	rs2307111	T	C	0.604	0.027	0.002	1.60E-58	795430	BMI	BMI-Only	3.45E-04	274
2	236903093	rs2317299	T	C	0.440	0.011	0.002	1.30E-09	677983	BMI	BMI&Smoking	5.73E-05	39
6	120213880	rs2357760	A	G	0.675	0.015	0.002	6.80E-17	791053	BMI	BMI&Smoking	9.20E-05	73

3	61236462	rs2365389	T	C	0.414	-0.017	0.002	1.30E-25	783625	BMI	BMI-Only	1.34E-04	105
5	64168193	rs2367112	T	G	0.508	0.012	0.002	2.30E-13	794305	BMI	BMI-Only	6.96E-05	55
3	64718258	rs2371767	C	G	0.277	0.011	0.002	6.20E-09	768041	BMI	BMI-Only	4.60E-05	35
7	113028634	rs2396625	A	T	0.434	-0.016	0.002	3.60E-20	678792	BMI	BMI-Only	1.19E-04	81
20	44904838	rs2425840	A	C	0.594	-0.012	0.002	1.60E-11	681680	BMI	BMI&Smoking	6.41E-05	44
12	2152655	rs2429150	A	C	0.584	-0.011	0.002	2.70E-10	686276	BMI	BMI-Only	5.54E-05	38
19	4445156	rs243387	A	G	0.458	-0.010	0.002	4.40E-09	692367	BMI	BMI&Smoking	5.10E-05	35
14	102414767	rs2448241	A	G	0.097	-0.018	0.003	3.20E-09	679785	BMI	BMI-Only	5.06E-05	34
10	93010383	rs2450444	A	G	0.349	-0.011	0.002	3.70E-10	792084	BMI	BMI-Only	5.00E-05	40
6	26640283	rs2451746	C	G	0.631	0.011	0.002	4.60E-10	692580	BMI	BMI&Smoking	5.49E-05	38
8	85679207	rs2467210	A	G	0.227	-0.015	0.002	7.90E-13	691143	BMI	BMI-Only	7.60E-05	53
11	29224006	rs2467594	A	G	0.364	-0.012	0.002	6.50E-12	691404	BMI	BMI-Only	6.64E-05	46
3	15762920	rs2470520	T	C	0.603	-0.011	0.002	5.00E-10	691982	BMI	BMI&Smoking	5.94E-05	41
10	34911879	rs2477017	A	G	0.381	0.010	0.002	5.40E-09	691826	BMI	BMI-Only	4.83E-05	33
6	51152988	rs2478879	A	G	0.605	0.016	0.002	3.80E-19	681168	BMI	BMI-Only	1.15E-04	78
13	111984244	rs2479958	A	G	0.493	0.015	0.002	1.50E-17	664268	BMI	BMI&Smoking	1.10E-04	73
5	167352783	rs248139	A	G	0.193	0.013	0.002	1.20E-09	683675	BMI	BMI-Only	5.35E-05	37
1	62594677	rs2481665	T	C	0.559	0.016	0.002	7.20E-23	795247	BMI	BMI-Only	1.27E-04	101
1	190804630	rs2489676	T	G	0.451	-0.010	0.002	8.80E-09	689550	BMI	BMI&Smoking	5.02E-05	35
16	9412804	rs249292	T	C	0.690	0.012	0.002	1.90E-10	683503	BMI	BMI&Smoking	5.84E-05	40
16	2097158	rs2516739	A	G	0.217	-0.016	0.002	1.40E-14	761216	BMI	BMI&Smoking	7.53E-05	57
7	74098949	rs2527366	A	G	0.659	-0.011	0.002	6.50E-09	672189	BMI	BMI-Only	5.26E-05	35
5	77389973	rs252749	A	G	0.242	-0.012	0.002	8.20E-09	691560	BMI	BMI-Only	4.78E-05	33
5	106727006	rs252819	T	C	0.815	0.013	0.002	4.00E-09	684020	BMI	BMI-Only	5.26E-05	36
8	15536311	rs2543132	C	G	0.813	0.015	0.002	5.00E-11	688326	BMI	BMI-Only	6.40E-05	44
3	12928762	rs2600226	T	C	0.670	-0.012	0.002	3.70E-10	685285	BMI	BMI-Only	5.44E-05	37
11	93221105	rs2605603	A	G	0.489	-0.010	0.002	2.50E-10	790857	BMI	BMI&Smoking	5.24E-05	41
8	20668624	rs2616192	T	G	0.678	0.013	0.002	2.10E-11	683969	BMI	BMI-Only	6.33E-05	43
17	71754545	rs2619976	T	C	0.413	0.010	0.002	6.30E-09	684417	BMI	BMI-Only	4.88E-05	33
3	183522231	rs263041	A	G	0.367	0.012	0.002	2.20E-12	692268	BMI	BMI&Smoking	6.85E-05	47
3	158026489	rs2682406	A	T	0.417	-0.013	0.002	8.90E-14	684757	BMI	BMI&Smoking	7.85E-05	54
8	116750548	rs2694047	A	G	0.253	-0.019	0.002	3.90E-21	690295	BMI	BMI&Smoking	1.28E-04	88

3	180952891	rs2718786	A	G	0.381	0.011	0.002	2.70E-10	688485	BMI	BMI&Smoking	5.62E-05	39
12	90623961	rs2731277	T	C	0.746	-0.014	0.002	8.80E-12	691236	BMI	BMI-Only	6.59E-05	46
8	33348104	rs2732275	A	G	0.616	0.010	0.002	3.80E-09	692576	BMI	BMI-Only	4.82E-05	33
12	41880909	rs2733287	A	C	0.517	-0.016	0.002	6.80E-20	681730	BMI	BMI-Only	1.25E-04	85
19	18215247	rs273504	A	G	0.573	-0.015	0.002	4.40E-18	690672	BMI	BMI&Smoking	1.05E-04	72
6	34579431	rs2744974	T	C	0.338	0.025	0.002	1.40E-45	789647	BMI	BMI-Only	2.42E-04	191
9	120902240	rs2809395	A	T	0.821	0.014	0.002	2.20E-09	682625	BMI	BMI-Only	5.52E-05	38
1	77791689	rs2815324	T	C	0.784	-0.013	0.002	1.00E-10	786928	BMI	BMI&Smoking	5.29E-05	42
1	201841476	rs2820311	A	G	0.663	-0.024	0.002	4.10E-38	691876	BMI	BMI-Only	2.46E-04	170
21	30690558	rs2832283	A	G	0.221	0.012	0.002	5.80E-09	792324	BMI	BMI&Smoking	4.17E-05	33
21	40627020	rs2836961	A	C	0.617	-0.010	0.002	1.10E-09	793481	BMI	BMI&Smoking	4.54E-05	36
21	41427168	rs2837398	A	C	0.596	-0.011	0.002	1.10E-10	680214	BMI	BMI-Only	5.90E-05	40
1	82379446	rs284227	T	C	0.745	-0.015	0.002	3.50E-15	792227	BMI	BMI-Only	7.56E-05	60
4	102183594	rs2850969	T	C	0.857	-0.017	0.002	1.30E-11	691825	BMI	BMI-Only	6.83E-05	47
19	30683879	rs2866816	T	C	0.739	0.013	0.002	5.60E-11	688980	BMI	BMI-Only	6.04E-05	42
4	20260038	rs2874800	A	G	0.321	-0.012	0.002	2.60E-10	684105	BMI	BMI&Smoking	5.64E-05	39
6	124925032	rs2875762	C	G	0.247	0.014	0.002	1.20E-11	685199	BMI	BMI-Only	7.05E-05	48
2	142959931	rs2890652	T	C	0.824	-0.017	0.002	2.50E-13	674785	BMI	BMI&Smoking	8.10E-05	55
7	150638484	rs2907948	A	G	0.243	-0.014	0.002	1.30E-13	794299	BMI	BMI&Smoking	6.93E-05	55
8	101986864	rs2923774	A	G	0.659	0.011	0.002	7.70E-09	689531	BMI	BMI&Smoking	4.93E-05	34
5	152519088	rs294704	T	G	0.724	-0.011	0.002	4.00E-09	690036	BMI	BMI&Smoking	5.13E-05	35
19	34309532	rs29941	A	G	0.314	-0.015	0.002	5.10E-18	794542	BMI	BMI&Smoking	8.97E-05	71
14	47367616	rs3007105	T	C	0.470	0.014	0.002	1.10E-17	785488	BMI	BMI&Smoking	8.88E-05	70
4	38699657	rs3209570	A	G	0.375	-0.014	0.002	9.80E-16	674149	BMI	BMI&Smoking	9.36E-05	63
5	86769015	rs323742	A	T	0.972	-0.041	0.006	2.00E-13	681360	BMI	BMI-Only	7.87E-05	54
4	112713436	rs326889	T	C	0.393	-0.013	0.002	2.40E-13	688030	BMI	BMI-Only	7.46E-05	51
5	133864599	rs329122	A	G	0.423	-0.013	0.002	4.30E-14	792745	BMI	BMI&Smoking	6.82E-05	54
11	133767622	rs329651	T	G	0.806	0.016	0.002	9.00E-15	779232	BMI	BMI-Only	7.83E-05	61
4	143663206	rs331949	T	C	0.627	-0.011	0.002	1.00E-10	787844	BMI	BMI&Smoking	5.31E-05	42
19	30943677	rs33436	A	G	0.371	-0.013	0.002	3.00E-12	686454	BMI	BMI&Smoking	7.02E-05	48
3	42417982	rs33485	T	C	0.731	-0.016	0.002	1.10E-15	690171	BMI	BMI-Only	9.04E-05	62
15	60908307	rs340025	T	C	0.428	-0.012	0.002	1.00E-13	786830	BMI	BMI&Smoking	6.76E-05	53

11	84814393	rs349088	A	C	0.498	-0.013	0.002	1.80E-13	684401	BMI	BMI-Only	8.28E-05	57
3	154034950	rs355777	C	G	0.411	0.015	0.002	1.40E-18	689978	BMI	BMI&Smoking	1.17E-04	81
15	51748610	rs3736485	A	G	0.456	0.013	0.002	2.50E-16	790404	BMI	BMI-Only	8.87E-05	70
2	159519368	rs3764835	A	G	0.153	-0.014	0.002	3.10E-09	689505	BMI	BMI-Only	5.01E-05	35
1	54730651	rs3766430	T	C	0.559	-0.011	0.002	3.90E-12	791258	BMI	BMI&Smoking	6.30E-05	50
2	166186923	rs3769948	A	G	0.753	0.013	0.002	2.90E-10	692300	BMI	BMI&Smoking	5.64E-05	39
6	108996963	rs3800229	T	G	0.712	0.018	0.002	1.40E-22	792474	BMI	BMI&Smoking	1.19E-04	95
14	103246470	rs3803286	A	G	0.343	0.018	0.002	4.10E-23	691435	BMI	BMI&Smoking	1.46E-04	101
6	20487250	rs3806116	T	G	0.383	0.010	0.002	7.70E-10	780574	BMI	BMI&Smoking	4.79E-05	37
7	50564204	rs3807566	T	G	0.443	-0.013	0.002	2.00E-13	687535	BMI	BMI-Only	8.12E-05	56
19	47569003	rs3810291	A	G	0.670	0.027	0.002	2.10E-52	763296	BMI	BMI&Smoking	3.03E-04	232
2	228883721	rs3811514	T	C	0.512	0.012	0.002	1.20E-12	692543	BMI	BMI&Smoking	7.31E-05	51
6	24848086	rs3813680	A	G	0.844	0.014	0.002	1.60E-09	692399	BMI	BMI-Only	5.20E-05	36
16	29994922	rs3814883	T	C	0.476	0.023	0.002	1.10E-40	685519	BMI	BMI&Smoking	2.72E-04	186
19	42637232	rs3826705	T	C	0.879	-0.016	0.003	6.60E-09	690844	BMI	BMI-Only	4.89E-05	34
9	129390800	rs3829849	T	C	0.359	0.010	0.002	5.90E-09	793851	BMI	BMI-Only	4.19E-05	33
2	203740672	rs3845802	T	G	0.514	-0.012	0.002	1.20E-12	793603	BMI	BMI&Smoking	6.51E-05	52
3	81792112	rs3849570	A	C	0.341	0.013	0.002	3.30E-14	750266	BMI	BMI&Smoking	8.04E-05	60
10	33862727	rs3851083	A	G	0.433	-0.010	0.002	4.10E-10	793679	BMI	BMI-Only	5.12E-05	41
3	44045981	rs3852012	A	G	0.688	-0.013	0.002	1.40E-13	790499	BMI	BMI&Smoking	6.70E-05	53
12	121661966	rs3887080	A	G	0.121	0.018	0.003	5.10E-12	690624	BMI	BMI&Smoking	7.02E-05	48
14	69789755	rs3902951	T	G	0.755	-0.013	0.002	7.00E-12	773819	BMI	BMI&Smoking	5.80E-05	45
17	31475545	rs3930349	A	C	0.220	-0.014	0.002	4.20E-12	691857	BMI	BMI&Smoking	6.80E-05	47
19	1891992	rs3957285	A	G	0.526	0.014	0.002	2.90E-16	681716	BMI	BMI&Smoking	9.39E-05	64
5	107439012	rs40067	A	G	0.171	-0.027	0.002	7.10E-30	681695	BMI	BMI&Smoking	1.96E-04	134
20	32553047	rs4012234	T	G	0.408	-0.014	0.002	9.90E-16	689653	BMI	BMI-Only	8.90E-05	61
7	21470536	rs40245	A	T	0.359	0.011	0.002	1.90E-09	681704	BMI	BMI&Smoking	5.48E-05	37
8	143300279	rs4072917	A	G	0.469	0.012	0.002	6.90E-11	684720	BMI	BMI&Smoking	5.96E-05	41
12	51593616	rs4077093	T	G	0.217	0.013	0.002	5.10E-09	620584	BMI	BMI-Only	5.45E-05	34
14	99700080	rs4082793	T	C	0.421	-0.012	0.002	3.60E-12	686991	BMI	BMI&Smoking	6.69E-05	46
4	89054667	rs4148155	A	G	0.887	0.019	0.003	5.00E-13	794889	BMI	BMI&Smoking	6.58E-05	52
9	101477500	rs420158	T	C	0.734	-0.012	0.002	2.10E-10	795595	BMI	BMI-Only	4.93E-05	39

11	43648368	rs4237643	T	G	0.306	0.022	0.002	4.30E-33	692491	BMI	BMI-Only	1.99E-04	138
9	14442595	rs424539	C	G	0.611	-0.011	0.002	4.90E-10	689309	BMI	BMI&Smoking	5.42E-05	37
21	46570896	rs427943	A	C	0.433	-0.017	0.002	7.30E-23	712095	BMI	BMI&Smoking	1.40E-04	100
2	147903382	rs429343	A	G	0.419	0.015	0.002	6.80E-18	689345	BMI	BMI-Only	1.13E-04	78
7	24354300	rs4307239	A	G	0.542	-0.012	0.002	3.90E-11	687289	BMI	BMI-Only	6.66E-05	46
2	28973883	rs4372836	T	C	0.303	0.014	0.002	7.30E-16	794417	BMI	BMI-Only	7.83E-05	62
14	63094407	rs4430672	T	C	0.200	0.013	0.002	3.90E-09	691400	BMI	BMI-Only	4.82E-05	33
2	205375909	rs4482463	A	C	0.921	-0.033	0.003	2.80E-23	635414	BMI	BMI-Only	1.58E-04	101
16	20375776	rs4483850	A	T	0.509	0.016	0.002	5.20E-21	691672	BMI	BMI-Only	1.31E-04	91
17	1846831	rs4516268	A	C	0.193	-0.022	0.002	5.20E-25	786617	BMI	BMI&Smoking	1.36E-04	107
5	27185904	rs4518345	A	G	0.284	-0.012	0.002	1.00E-09	688609	BMI	BMI-Only	5.51E-05	38
1	98328093	rs4523552	T	C	0.223	0.014	0.002	4.00E-11	687770	BMI	BMI&Smoking	6.19E-05	43
10	122069448	rs4523610	T	C	0.771	-0.012	0.002	1.30E-09	686905	BMI	BMI-Only	5.51E-05	38
2	100814858	rs4556997	A	C	0.135	0.020	0.002	6.90E-17	792972	BMI	BMI&Smoking	8.50E-05	67
5	112176756	rs459552	A	T	0.769	-0.013	0.002	1.70E-10	782145	BMI	BMI-Only	5.07E-05	40
5	66191971	rs460799	A	G	0.268	-0.012	0.002	6.40E-10	690884	BMI	BMI-Only	5.58E-05	39
2	416815	rs4639527	A	G	0.699	-0.017	0.002	3.30E-20	691706	BMI	BMI-Only	1.18E-04	82
1	33776728	rs4653017	T	C	0.682	0.012	0.002	4.50E-11	686378	BMI	BMI&Smoking	6.69E-05	46
2	236801872	rs4663629	A	G	0.238	0.013	0.002	1.10E-10	686571	BMI	BMI-Only	5.84E-05	40
2	37046711	rs4670627	T	C	0.563	0.011	0.002	2.60E-10	794641	BMI	BMI-Only	4.80E-05	38
2	58935282	rs4671328	T	G	0.447	0.022	0.002	2.20E-36	679487	BMI	BMI-Only	2.44E-04	166
2	211608379	rs4673553	T	G	0.544	-0.014	0.002	2.10E-16	686078	BMI	BMI-Only	1.02E-04	70
3	194863794	rs4677812	A	C	0.281	-0.014	0.002	1.40E-12	691839	BMI	BMI-Only	7.41E-05	51
3	44226332	rs4682718	A	G	0.820	-0.015	0.002	9.90E-12	687043	BMI	BMI&Smoking	6.52E-05	45
5	63954744	rs4700646	A	G	0.474	0.011	0.002	2.40E-10	688005	BMI	BMI-Only	5.97E-05	41
5	77787889	rs4704513	C	G	0.819	-0.013	0.002	7.40E-09	686651	BMI	BMI&Smoking	4.70E-05	32
6	51789259	rs4711986	A	G	0.354	0.014	0.002	1.70E-15	687827	BMI	BMI-Only	9.18E-05	63
7	71434369	rs4717623	T	C	0.255	-0.014	0.002	4.20E-12	692442	BMI	BMI-Only	6.58E-05	46
7	70040558	rs4718966	T	C	0.418	0.013	0.002	4.60E-13	686820	BMI	BMI&Smoking	7.25E-05	50
7	3125220	rs4722398	T	C	0.134	0.016	0.003	3.60E-10	692509	BMI	BMI&Smoking	5.77E-05	40
7	27231762	rs4722672	T	C	0.815	-0.015	0.002	1.80E-12	784309	BMI	BMI-Only	6.59E-05	52
9	133783566	rs4740383	A	G	0.416	0.013	0.002	1.90E-12	662683	BMI	BMI-Only	7.39E-05	49

9	15634326	rs4740619	T	C	0.548	0.019	0.002	2.30E-30	794491	BMI	BMI&Smoking	1.70E-04	135
10	77534000	rs4745794	A	G	0.484	-0.011	0.002	7.20E-11	678128	BMI	BMI-Only	6.63E-05	45
11	13331226	rs4757144	A	G	0.588	0.017	0.002	5.60E-22	690082	BMI	BMI&Smoking	1.28E-04	88
12	54667285	rs4759075	T	C	0.599	0.011	0.002	1.40E-11	795195	BMI	BMI&Smoking	5.46E-05	43
16	82650384	rs4783241	C	G	0.494	-0.011	0.002	4.00E-10	689741	BMI	BMI&Smoking	5.85E-05	40
17	35057883	rs4796243	A	G	0.303	-0.012	0.002	6.10E-11	691686	BMI	BMI-Only	6.16E-05	43
19	51812034	rs4802778	A	G	0.575	-0.012	0.002	8.40E-11	686198	BMI	BMI&Smoking	6.05E-05	42
20	16564210	rs4814512	A	C	0.782	0.013	0.002	2.30E-10	692559	BMI	BMI&Smoking	5.79E-05	40
22	40604945	rs4820408	T	G	0.408	0.015	0.002	2.10E-19	794185	BMI	BMI&Smoking	9.93E-05	79
3	66436182	rs4856794	T	G	0.651	-0.011	0.002	1.50E-09	690270	BMI	BMI-Only	5.41E-05	37
3	20441050	rs4858193	T	C	0.722	0.013	0.002	1.60E-11	686850	BMI	BMI&Smoking	6.71E-05	46
3	48092017	rs4858887	A	C	0.681	-0.012	0.002	2.10E-11	692416	BMI	BMI&Smoking	6.15E-05	43
6	160774441	rs486359	C	G	0.485	0.011	0.002	1.60E-11	770999	BMI	BMI&Smoking	5.63E-05	43
4	130731284	rs4864201	T	C	0.353	0.014	0.002	1.50E-16	795263	BMI	BMI-Only	8.65E-05	69
5	53272664	rs4865796	A	G	0.691	-0.010	0.002	5.20E-09	789716	BMI	BMI&Smoking	4.15E-05	33
9	88915566	rs4877313	A	T	0.782	0.013	0.002	4.10E-10	691598	BMI	BMI-Only	5.46E-05	38
10	133992689	rs4880341	T	C	0.561	-0.012	0.002	1.10E-11	689012	BMI	BMI-Only	6.99E-05	48
16	31011183	rs4889606	A	G	0.620	0.020	0.002	2.80E-33	788888	BMI	BMI&Smoking	1.79E-04	141
15	27040082	rs4906908	T	G	0.475	-0.010	0.002	2.50E-09	691345	BMI	BMI&Smoking	5.31E-05	37
20	33355046	rs4911442	A	G	0.873	0.015	0.002	5.40E-10	795055	BMI	BMI&Smoking	4.91E-05	39
1	171443368	rs4916229	C	G	0.907	-0.018	0.003	4.90E-10	690476	BMI	BMI-Only	5.77E-05	40
11	28742220	rs491711	A	C	0.684	0.012	0.002	1.10E-09	685113	BMI	BMI-Only	5.35E-05	37
11	8639200	rs4929923	T	C	0.362	-0.018	0.002	7.20E-27	794933	BMI	BMI-Only	1.43E-04	113
11	132641959	rs4936175	T	C	0.556	-0.012	0.002	1.40E-12	692569	BMI	BMI&Smoking	7.44E-05	52
11	121942512	rs4936671	C	G	0.367	0.011	0.002	6.20E-09	678888	BMI	BMI-Only	5.01E-05	34
2	42935961	rs4953577	T	C	0.553	0.010	0.002	9.90E-09	689607	BMI	BMI&Smoking	4.92E-05	34
2	137435455	rs4954638	A	C	0.751	0.012	0.002	2.90E-09	689971	BMI	BMI&Smoking	5.04E-05	35
11	825777	rs4963120	T	C	0.565	0.013	0.002	3.60E-13	669736	BMI	BMI&Smoking	7.79E-05	52
17	79081724	rs4969387	C	G	0.746	-0.015	0.002	4.30E-13	678051	BMI	BMI&Smoking	7.75E-05	53
6	31892592	rs498240	A	G	0.066	-0.027	0.003	1.60E-15	679278	BMI	BMI&Smoking	9.64E-05	65
16	15129459	rs4985155	A	G	0.663	0.012	0.002	3.00E-12	794269	BMI	BMI-Only	6.27E-05	50
17	21261560	rs4986044	T	C	0.469	-0.016	0.002	3.30E-23	787219	BMI	BMI-Only	1.33E-04	105

9	102100348	rs4989244	A	G	0.411	-0.011	0.002	7.50E-11	690466	BMI	BMI&Smoking	6.40E-05	44
11	64440920	rs506338	T	C	0.298	-0.013	0.002	7.80E-14	793359	BMI	BMI&Smoking	6.98E-05	55
2	166959505	rs535533	T	C	0.594	-0.010	0.002	3.40E-09	690482	BMI	BMI&Smoking	4.83E-05	33
3	173120103	rs536445	T	C	0.529	0.014	0.002	4.60E-16	689967	BMI	BMI&Smoking	9.83E-05	68
3	62711674	rs538579	C	G	0.323	0.014	0.002	1.30E-13	688452	BMI	BMI&Smoking	7.55E-05	52
1	177889480	rs543874	A	G	0.805	-0.048	0.002	#####	795504	BMI	BMI&Smoking	7.09E-04	564
18	39644247	rs559231	T	G	0.396	0.014	0.002	2.40E-14	685154	BMI	BMI&Smoking	8.21E-05	56
15	74286929	rs5742914	T	C	0.136	0.018	0.003	8.80E-11	679703	BMI	BMI-Only	6.18E-05	42
22	42592239	rs5751239	T	C	0.517	0.011	0.002	3.60E-10	686031	BMI	BMI&Smoking	5.99E-05	41
10	99769388	rs577525	T	C	0.432	-0.017	0.002	9.70E-22	690616	BMI	BMI&Smoking	1.38E-04	95
11	69445173	rs592483	T	C	0.572	-0.015	0.002	2.00E-18	781871	BMI	BMI-Only	9.56E-05	75
20	61530915	rs6011457	A	T	0.498	-0.012	0.002	2.70E-11	690692	BMI	BMI&Smoking	6.74E-05	47
20	54394975	rs6014523	T	C	0.803	0.015	0.002	1.40E-11	691275	BMI	BMI&Smoking	6.64E-05	46
20	47495560	rs6019482	T	C	0.165	-0.018	0.002	2.80E-14	685234	BMI	BMI&Smoking	8.74E-05	60
20	53453850	rs6023633	A	G	0.763	-0.014	0.002	5.10E-11	670718	BMI	BMI&Smoking	6.44E-05	43
20	25195509	rs6050446	A	G	0.030	-0.034	0.005	4.40E-13	766287	BMI	BMI&Smoking	6.95E-05	53
18	58156977	rs610634	T	C	0.818	0.014	0.002	1.00E-09	689097	BMI	BMI&Smoking	5.22E-05	36
20	30785593	rs6121381	A	T	0.847	-0.015	0.002	9.40E-10	691119	BMI	BMI-Only	5.43E-05	38
20	25059442	rs6138482	T	C	0.197	0.015	0.002	5.80E-13	795349	BMI	BMI-Only	6.79E-05	54
12	18789007	rs621042	A	C	0.451	-0.011	0.002	6.30E-10	689121	BMI	BMI-Only	5.75E-05	40
5	95728898	rs6235	C	G	0.730	-0.018	0.002	1.50E-19	691708	BMI	BMI&Smoking	1.23E-04	85
11	27679916	rs6265	T	C	0.195	-0.041	0.002	1.00E-86	795458	BMI	BMI&Smoking	4.84E-04	385
3	78458928	rs6419734	T	C	0.152	0.017	0.003	1.90E-12	688250	BMI	BMI&Smoking	7.04E-05	48
3	181329682	rs6443750	T	C	0.193	-0.015	0.002	3.20E-12	776837	BMI	BMI&Smoking	6.39E-05	50
3	52874288	rs6445538	T	C	0.765	-0.015	0.002	1.40E-13	692545	BMI	BMI&Smoking	8.01E-05	56
4	28561990	rs6448587	A	C	0.811	0.017	0.002	2.30E-13	691097	BMI	BMI&Smoking	7.63E-05	53
5	60715446	rs6449532	T	C	0.355	-0.013	0.002	1.20E-12	691904	BMI	BMI-Only	7.19E-05	50
7	2103668	rs6461115	A	G	0.772	0.014	0.002	1.20E-13	791735	BMI	BMI&Smoking	7.25E-05	57
8	62117973	rs6471941	A	G	0.168	0.016	0.002	3.10E-13	793986	BMI	BMI-Only	6.95E-05	55
9	111932342	rs6477694	T	C	0.644	-0.012	0.002	3.80E-13	789230	BMI	BMI&Smoking	6.63E-05	52
17	61630076	rs6504165	T	C	0.737	0.014	0.002	4.00E-13	794920	BMI	BMI&Smoking	6.35E-05	50
20	62691550	rs6512302	C	G	0.751	0.014	0.002	2.10E-12	686053	BMI	BMI-Only	7.35E-05	50

11	68699775	rs653264	A	G	0.531	-0.010	0.002	9.30E-09	686404	BMI	BMI-Only	4.94E-05	34
2	59150222	rs6545709	A	G	0.099	-0.020	0.003	1.50E-11	681935	BMI	BMI-Only	6.71E-05	46
2	59307725	rs6545714	A	G	0.614	-0.019	0.002	9.10E-31	793368	BMI	BMI&Smoking	1.59E-04	126
2	295255	rs6548221	A	G	0.225	0.015	0.002	1.70E-14	795394	BMI	BMI-Only	7.17E-05	57
3	82704753	rs6548834	A	G	0.362	0.014	0.002	1.80E-14	692240	BMI	BMI&Smoking	8.25E-05	57
5	176527577	rs6556301	T	G	0.360	-0.011	0.002	4.10E-10	734744	BMI	BMI-Only	5.18E-05	38
13	53866077	rs6561710	A	G	0.583	-0.011	0.002	2.60E-09	684515	BMI	BMI&Smoking	4.97E-05	34
13	54691484	rs6561766	A	G	0.119	0.017	0.003	1.20E-09	683697	BMI	BMI&Smoking	5.27E-05	36
16	76779612	rs6564360	A	G	0.810	-0.014	0.002	1.20E-09	690911	BMI	BMI-Only	5.45E-05	38
1	49589847	rs657452	A	G	0.378	0.019	0.002	7.20E-29	767846	BMI	BMI&Smoking	1.59E-04	122
1	151018861	rs6587552	A	G	0.241	0.017	0.002	1.60E-17	689723	BMI	BMI&Smoking	1.08E-04	75
5	115710803	rs6594967	T	C	0.673	0.011	0.002	3.40E-09	689250	BMI	BMI-Only	5.32E-05	37
5	119372533	rs6595205	C	G	0.470	0.011	0.002	2.00E-12	794525	BMI	BMI-Only	6.39E-05	51
12	110903380	rs6606686	C	G	0.690	-0.014	0.002	7.60E-15	795209	BMI	BMI-Only	7.18E-05	57
18	57838401	rs663129	A	G	0.230	0.055	0.002	#####	788948	BMI	BMI&Smoking	1.04E-03	823
1	210095527	rs6661316	T	C	0.577	0.011	0.002	6.80E-11	795169	BMI	BMI-Only	5.52E-05	44
1	7722501	rs6662747	A	G	0.531	-0.011	0.002	3.50E-10	688283	BMI	BMI-Only	5.97E-05	41
1	197094030	rs6676084	T	C	0.309	-0.012	0.002	4.90E-12	786902	BMI	BMI&Smoking	5.84E-05	46
1	92976590	rs6690764	A	G	0.792	-0.015	0.002	6.30E-12	733760	BMI	BMI-Only	6.68E-05	49
1	174885129	rs6691857	T	C	0.031	-0.035	0.005	6.90E-12	686532	BMI	BMI&Smoking	6.74E-05	46
1	23299906	rs6692586	A	G	0.168	0.019	0.002	1.10E-16	690921	BMI	BMI-Only	1.01E-04	70
2	104420858	rs6707445	A	G	0.454	0.013	0.002	2.10E-13	679298	BMI	BMI&Smoking	8.34E-05	57
2	143960593	rs6710871	A	G	0.142	0.018	0.002	1.00E-13	741157	BMI	BMI-Only	7.50E-05	56
2	40291940	rs6713781	C	G	0.414	-0.012	0.002	3.80E-12	674261	BMI	BMI-Only	6.92E-05	47
2	172599615	rs6738445	T	C	0.284	-0.013	0.002	1.90E-13	787966	BMI	BMI&Smoking	6.93E-05	55
2	950291	rs6759670	A	C	0.725	-0.012	0.002	1.90E-09	686778	BMI	BMI-Only	5.43E-05	37
3	196088464	rs6764533	A	G	0.359	0.012	0.002	1.40E-10	690832	BMI	BMI&Smoking	6.01E-05	42
20	3026069	rs676749	A	T	0.502	-0.010	0.002	1.70E-09	691753	BMI	BMI&Smoking	5.41E-05	37
3	156893782	rs6767619	C	G	0.345	0.012	0.002	8.10E-11	691865	BMI	BMI-Only	6.32E-05	44
3	62376645	rs6777784	T	G	0.622	0.011	0.002	4.70E-09	679371	BMI	BMI&Smoking	5.01E-05	34
3	80649139	rs6781254	T	C	0.303	0.011	0.002	4.90E-10	777021	BMI	BMI-Only	4.98E-05	39
3	116937546	rs6804181	A	T	0.821	0.015	0.002	5.50E-11	687538	BMI	BMI-Only	6.44E-05	44



3	25106437	rs6804842	A	G	0.428	-0.016	0.002	3.60E-21	789179	BMI	BMI&Smoking	1.07E-04	84
3	38460062	rs6807940	C	G	0.402	-0.010	0.002	6.40E-09	691990	BMI	BMI-Only	4.64E-05	32
4	89197519	rs6819344	A	C	0.401	0.010	0.002	6.10E-10	795079	BMI	BMI-Only	4.62E-05	37
4	153075491	rs6827083	A	G	0.569	-0.010	0.002	4.80E-09	794577	BMI	BMI&Smoking	4.63E-05	37
4	25423538	rs6841761	T	G	0.525	-0.013	0.002	6.40E-16	793477	BMI	BMI-Only	8.45E-05	67
4	20120274	rs6849518	T	C	0.126	0.017	0.003	2.60E-11	687979	BMI	BMI&Smoking	6.43E-05	44
4	21010996	rs6850639	T	C	0.208	0.012	0.002	1.80E-09	788357	BMI	BMI&Smoking	4.42E-05	35
4	145261999	rs6852276	A	G	0.598	-0.011	0.002	8.50E-11	781303	BMI	BMI&Smoking	5.17E-05	40
5	124330522	rs6864049	A	G	0.461	-0.013	0.002	6.70E-14	776397	BMI	BMI&Smoking	6.96E-05	54
5	87697533	rs6870983	T	C	0.218	-0.020	0.002	6.50E-25	792455	BMI	BMI&Smoking	1.31E-04	104
5	74253864	rs6898812	T	G	0.441	-0.010	0.002	4.20E-09	685037	BMI	BMI-Only	4.87E-05	33
6	41825590	rs6901756	T	C	0.878	0.015	0.003	2.90E-09	795378	BMI	BMI-Only	4.29E-05	34
6	73742334	rs6921533	T	C	0.288	0.012	0.002	5.60E-10	690769	BMI	BMI-Only	5.58E-05	39
6	40097013	rs6936016	T	C	0.343	-0.010	0.002	9.70E-09	691092	BMI	BMI&Smoking	4.83E-05	33
7	17287106	rs6968554	A	G	0.360	-0.010	0.002	3.50E-09	794218	BMI	BMI-Only	4.36E-05	35
8	10761585	rs6985109	A	G	0.534	-0.018	0.002	1.50E-26	793993	BMI	BMI&Smoking	1.37E-04	108
8	87519542	rs7006629	T	C	0.526	0.011	0.002	2.50E-10	691635	BMI	BMI-Only	5.94E-05	41
9	109072075	rs7024334	T	G	0.226	0.014	0.002	3.10E-12	782431	BMI	BMI&Smoking	6.08E-05	48
9	103088321	rs7025938	C	G	0.681	-0.017	0.002	3.70E-19	691581	BMI	BMI-Only	1.10E-04	76
7	39058577	rs702820	T	C	0.884	-0.017	0.003	1.90E-10	689651	BMI	BMI-Only	5.75E-05	40
10	103984060	rs7083450	T	C	0.839	0.016	0.002	1.70E-12	795609	BMI	BMI&Smoking	6.01E-05	48
10	21821274	rs7084454	A	G	0.335	0.019	0.002	4.00E-25	678564	BMI	BMI&Smoking	1.52E-04	103
11	65594820	rs7102454	T	C	0.657	-0.016	0.002	2.40E-18	691134	BMI	BMI-Only	1.11E-04	77
11	78040259	rs7117238	A	G	0.168	-0.013	0.002	2.50E-09	788879	BMI	BMI&Smoking	4.49E-05	35
11	72444583	rs7123876	T	C	0.754	-0.012	0.002	2.20E-10	793551	BMI	BMI&Smoking	4.94E-05	39
11	47529947	rs7124681	A	C	0.413	0.026	0.002	3.20E-58	795474	BMI	BMI&Smoking	3.40E-04	270
12	124409502	rs7133378	A	G	0.327	0.013	0.002	9.40E-13	784423	BMI	BMI&Smoking	6.15E-05	48
12	53785861	rs7134628	A	G	0.103	0.017	0.003	1.20E-09	691228	BMI	BMI&Smoking	5.46E-05	38
12	50247468	rs7138803	A	G	0.377	0.030	0.002	2.30E-71	795588	BMI	BMI&Smoking	3.91E-04	311
14	79940383	rs7144011	T	G	0.214	0.028	0.002	5.20E-47	794117	BMI	BMI&Smoking	2.50E-04	199
14	101539384	rs7147503	T	C	0.370	-0.012	0.002	2.00E-11	691094	BMI	BMI&Smoking	6.32E-05	44
15	73093991	rs7164727	T	C	0.681	0.018	0.002	3.30E-25	791156	BMI	BMI-Only	1.45E-04	115

15	31877690	rs7172627	A	G	0.528	-0.012	0.002	1.10E-11	690458	BMI	BMI-Only	6.86E-05	47
15	95271404	rs7181498	T	C	0.369	0.016	0.002	1.00E-19	690980	BMI	BMI&Smoking	1.19E-04	82
15	35826859	rs7181610	A	T	0.859	0.015	0.003	7.80E-09	667503	BMI	BMI&Smoking	5.04E-05	34
16	24806420	rs7186893	T	G	0.269	-0.014	0.002	6.50E-13	690831	BMI	BMI&Smoking	7.19E-05	50
16	24578458	rs7195386	T	C	0.501	0.013	0.002	1.10E-14	687736	BMI	BMI-Only	8.90E-05	61
11	113234679	rs719802	T	C	0.380	0.010	0.002	9.50E-09	692544	BMI	BMI&Smoking	4.55E-05	31
16	82872628	rs7206608	C	G	0.685	-0.013	0.002	1.30E-12	689058	BMI	BMI-Only	7.00E-05	48
16	53797908	rs7206790	C	G	0.529	-0.063	0.002	#####	777785	BMI	BMI-Only	1.75E-03	1360
17	73759552	rs7209235	A	G	0.695	-0.011	0.002	8.00E-09	683445	BMI	BMI&Smoking	4.99E-05	34
17	2136065	rs7217226	T	G	0.640	-0.013	0.002	2.60E-14	788202	BMI	BMI-Only	7.42E-05	58
17	42254011	rs7220138	C	G	0.696	-0.012	0.002	2.70E-10	638185	BMI	BMI-Only	6.57E-05	42
18	63373762	rs7235205	A	G	0.734	-0.014	0.002	4.40E-14	789016	BMI	BMI&Smoking	6.98E-05	55
18	45921214	rs7239114	A	G	0.540	0.012	0.002	1.20E-13	769496	BMI	BMI-Only	6.91E-05	53
18	56883319	rs7243357	T	G	0.827	0.019	0.002	9.10E-20	791550	BMI	BMI-Only	1.08E-04	85
19	12992579	rs7249143	T	G	0.308	0.013	0.002	3.60E-11	678777	BMI	BMI-Only	6.48E-05	44
19	45389596	rs7254892	A	G	0.036	0.028	0.005	4.00E-09	717789	BMI	BMI-Only	4.77E-05	34
12	17196832	rs7313220	A	G	0.486	0.012	0.002	1.40E-12	689327	BMI	BMI&Smoking	7.47E-05	52
2	113957198	rs731834	A	C	0.520	0.011	0.002	1.60E-09	625481	BMI	BMI-Only	5.65E-05	35
13	33147548	rs7332115	T	G	0.627	0.016	0.002	3.60E-21	795567	BMI	BMI&Smoking	1.10E-04	87
13	99120484	rs7334078	T	C	0.712	0.012	0.002	2.20E-10	688374	BMI	BMI&Smoking	5.89E-05	41
8	85077686	rs733594	T	C	0.718	0.014	0.002	5.90E-14	791828	BMI	BMI&Smoking	7.42E-05	59
7	77055885	rs740157	A	G	0.432	0.012	0.002	1.80E-12	787152	BMI	BMI-Only	6.68E-05	53
2	211988412	rs7421089	T	C	0.289	0.014	0.002	7.50E-13	692063	BMI	BMI&Smoking	7.29E-05	50
12	103699685	rs7488867	T	C	0.264	-0.020	0.002	8.40E-24	635746	BMI	BMI-Only	1.64E-04	104
16	28883241	rs7498665	A	G	0.596	-0.027	0.002	5.60E-60	790299	BMI	BMI&Smoking	3.21E-04	254
1	66434743	rs7519259	A	G	0.536	0.013	0.002	3.80E-13	681362	BMI	BMI&Smoking	7.93E-05	54
1	118864616	rs7534091	A	G	0.749	-0.011	0.002	1.00E-09	788883	BMI	BMI&Smoking	4.48E-05	35
1	2444414	rs7535528	A	G	0.374	-0.015	0.002	1.40E-16	632868	BMI	BMI&Smoking	1.13E-04	71
1	78023173	rs7536433	T	C	0.206	-0.016	0.002	9.80E-15	789929	BMI	BMI&Smoking	7.70E-05	61
1	110082886	rs7550711	T	C	0.031	0.065	0.005	3.20E-38	769184	BMI	BMI&Smoking	2.19E-04	168
1	74995225	rs7551507	T	C	0.563	-0.018	0.002	9.30E-30	794579	BMI	BMI&Smoking	1.66E-04	132
9	126290554	rs755407	T	C	0.282	0.012	0.002	2.30E-10	790662	BMI	BMI&Smoking	5.25E-05	42

2	86766153	rs7557796	T	C	0.348	0.016	0.002	2.30E-19	692414	BMI	BMI&Smoking	1.14E-04	79
2	145616899	rs7560871	A	G	0.073	0.022	0.003	9.60E-11	691571	BMI	BMI&Smoking	5.94E-05	41
2	48954905	rs7561278	T	C	0.786	0.016	0.002	5.70E-14	677253	BMI	BMI&Smoking	8.46E-05	57
2	384236	rs7565976	A	G	0.327	-0.011	0.002	2.60E-09	658310	BMI	BMI-Only	5.47E-05	36
16	72996162	rs756717	A	G	0.397	-0.015	0.002	5.40E-18	771976	BMI	BMI-Only	9.82E-05	76
2	28273595	rs7567655	A	G	0.969	-0.027	0.005	1.30E-09	781870	BMI	BMI-Only	4.60E-05	36
2	174980833	rs7573263	T	C	0.409	0.014	0.002	1.60E-15	681572	BMI	BMI&Smoking	9.13E-05	62
2	25488819	rs7578575	A	T	0.297	0.013	0.002	1.90E-11	676584	BMI	BMI&Smoking	6.92E-05	47
2	213413231	rs7599312	A	G	0.265	-0.019	0.002	6.90E-24	780823	BMI	BMI-Only	1.23E-04	96
2	156018263	rs7600699	C	G	0.842	-0.015	0.002	6.40E-10	691202	BMI	BMI-Only	5.58E-05	39
2	55281901	rs7601895	C	G	0.704	0.015	0.002	1.70E-15	679924	BMI	BMI-Only	9.04E-05	61
2	69562127	rs7607351	T	C	0.581	0.012	0.002	8.40E-12	685674	BMI	BMI&Smoking	7.15E-05	49
2	219279097	rs7607369	A	G	0.439	0.012	0.002	9.30E-13	790384	BMI	BMI-Only	6.76E-05	53
1	17301672	rs761423	T	C	0.550	0.011	0.002	5.50E-11	692545	BMI	BMI-Only	6.38E-05	44
3	156299313	rs7615297	C	G	0.854	0.015	0.002	5.70E-10	689710	BMI	BMI-Only	5.59E-05	39
21	39238610	rs762147	A	G	0.271	-0.012	0.002	3.30E-09	692496	BMI	BMI-Only	5.29E-05	37
3	131615881	rs7630302	C	G	0.100	-0.021	0.003	5.60E-13	687614	BMI	BMI-Only	7.77E-05	53
3	45373208	rs7636868	A	G	0.692	-0.011	0.002	2.60E-09	680581	BMI	BMI-Only	5.11E-05	35
3	107820063	rs7640424	T	C	0.297	-0.014	0.002	2.30E-14	790612	BMI	BMI&Smoking	7.22E-05	57
3	9505238	rs7652415	T	C	0.142	0.016	0.003	9.70E-10	680377	BMI	BMI-Only	5.29E-05	36
6	143185683	rs765875	T	C	0.481	-0.012	0.002	3.00E-12	690961	BMI	BMI&Smoking	7.33E-05	51
4	80794681	rs7674623	T	C	0.198	0.014	0.002	5.70E-10	685776	BMI	BMI&Smoking	5.49E-05	38
4	180167906	rs7683836	A	G	0.541	-0.011	0.002	6.30E-11	686968	BMI	BMI-Only	6.55E-05	45
4	95027784	rs7685048	T	C	0.465	-0.010	0.002	4.10E-09	692398	BMI	BMI-Only	5.10E-05	35
4	115124089	rs7694732	A	G	0.562	0.010	0.002	8.70E-09	690622	BMI	BMI-Only	4.91E-05	34
4	140881964	rs769674	A	T	0.678	0.014	0.002	2.20E-13	685942	BMI	BMI&Smoking	8.20E-05	56
5	153537893	rs7715256	T	G	0.578	-0.017	0.002	2.20E-24	795302	BMI	BMI&Smoking	1.35E-04	108
5	43191033	rs7730004	T	C	0.669	0.015	0.002	9.10E-16	690164	BMI	BMI&Smoking	9.79E-05	68
5	170459675	rs7730898	A	G	0.729	0.017	0.002	4.50E-20	792975	BMI	BMI&Smoking	1.10E-04	87
12	56920939	rs774211	T	C	0.843	0.014	0.002	4.60E-10	794223	BMI	BMI-Only	5.03E-05	40
6	41133806	rs7748777	A	G	0.459	0.011	0.002	1.60E-10	790069	BMI	BMI-Only	5.45E-05	43
6	21919387	rs7760082	A	G	0.665	-0.012	0.002	2.90E-11	690649	BMI	BMI-Only	6.65E-05	46

6	70357368	rs7761673	A	T	0.206	-0.013	0.002	1.90E-09	691716	BMI	BMI-Only	5.20E-05	36
6	34246714	rs7770443	A	C	0.153	0.015	0.003	1.30E-09	690271	BMI	BMI-Only	5.15E-05	36
7	93241640	rs7780752	T	C	0.640	-0.014	0.002	1.00E-14	690830	BMI	BMI&Smoking	8.63E-05	60
7	6418275	rs7784465	T	C	0.861	-0.016	0.003	1.10E-10	685477	BMI	BMI&Smoking	6.28E-05	43
3	118023515	rs779206	A	G	0.734	-0.013	0.002	1.10E-10	689160	BMI	BMI-Only	5.85E-05	40
7	32831628	rs7801551	T	C	0.643	0.010	0.002	9.70E-09	692185	BMI	BMI&Smoking	4.64E-05	32
7	137435925	rs7802342	T	G	0.710	-0.012	0.002	3.10E-10	683565	BMI	BMI-Only	5.93E-05	41
7	78121458	rs7805441	T	C	0.509	0.011	0.002	3.40E-10	682488	BMI	BMI&Smoking	6.02E-05	41
8	32400115	rs7826312	T	C	0.412	-0.010	0.002	4.90E-10	785343	BMI	BMI-Only	4.77E-05	37
8	34503776	rs7844647	T	C	0.732	0.012	0.002	2.80E-11	793703	BMI	BMI-Only	5.88E-05	47
4	52927229	rs784944	A	G	0.251	0.012	0.002	3.90E-10	688210	BMI	BMI-Only	5.99E-05	41
9	122631560	rs7865157	T	C	0.107	0.018	0.003	3.70E-10	690934	BMI	BMI-Only	5.78E-05	40
9	94180627	rs7869771	A	C	0.735	0.014	0.002	4.90E-13	679436	BMI	BMI&Smoking	7.99E-05	54
9	131027982	rs7871866	C	G	0.153	0.019	0.002	2.30E-14	683494	BMI	BMI-Only	8.88E-05	61
9	27777012	rs7874154	T	C	0.502	-0.013	0.002	1.80E-13	685829	BMI	BMI-Only	8.14E-05	56
10	87410904	rs7899106	A	G	0.952	-0.033	0.004	1.00E-18	793689	BMI	BMI-Only	1.01E-04	80
10	114758349	rs7903146	T	C	0.291	-0.018	0.002	1.30E-23	795624	BMI	BMI&Smoking	1.27E-04	101
11	130794253	rs7925214	T	C	0.513	0.015	0.002	4.40E-17	677603	BMI	BMI-Only	9.84E-05	67
11	131449439	rs7925748	A	G	0.598	-0.012	0.002	3.30E-12	689296	BMI	BMI&Smoking	6.66E-05	46
11	43534247	rs7929418	T	C	0.387	0.011	0.002	1.70E-10	688490	BMI	BMI-Only	5.72E-05	39
11	122522375	rs7941030	T	C	0.614	-0.011	0.002	2.00E-11	795457	BMI	BMI-Only	5.46E-05	43
11	64090422	rs7947143	A	G	0.163	-0.018	0.002	2.40E-14	690463	BMI	BMI&Smoking	8.15E-05	56
11	122762432	rs7950748	A	T	0.745	-0.012	0.002	4.80E-09	685706	BMI	BMI-Only	5.08E-05	35
12	118409640	rs7973955	A	G	0.285	-0.013	0.002	3.70E-11	684108	BMI	BMI&Smoking	6.43E-05	44
14	102649451	rs8016771	T	G	0.912	-0.019	0.003	1.10E-09	691604	BMI	BMI&Smoking	5.43E-05	38
7	86260816	rs802460	T	C	0.656	0.011	0.002	2.80E-09	691882	BMI	BMI&Smoking	5.11E-05	35
15	36402716	rs8036040	A	C	0.493	0.011	0.002	2.70E-10	691068	BMI	BMI&Smoking	5.95E-05	41
16	69419083	rs8061382	A	T	0.036	-0.031	0.005	2.70E-10	672827	BMI	BMI-Only	5.83E-05	39
16	53861024	rs8061518	A	G	0.640	0.014	0.002	1.80E-16	774471	BMI	BMI-Only	9.01E-05	70
17	38160754	rs8070454	T	C	0.387	-0.010	0.002	4.20E-09	795617	BMI	BMI-Only	4.18E-05	33
17	55336155	rs8071182	A	G	0.174	0.013	0.002	2.10E-09	771437	BMI	BMI-Only	4.74E-05	37
17	75995829	rs8081039	T	C	0.057	0.023	0.004	6.10E-10	677239	BMI	BMI-Only	5.55E-05	38

18	58100400	rs8088123	A	C	0.077	-0.026	0.003	3.70E-15	725399	BMI	BMI-Only	8.69E-05	63
18	69224478	rs8089514	A	T	0.359	0.013	0.002	1.10E-11	668999	BMI	BMI&Smoking	6.57E-05	44
18	1839601	rs8097672	A	T	0.847	-0.020	0.003	8.40E-16	686063	BMI	BMI&Smoking	9.33E-05	64
16	72251132	rs811054	T	C	0.537	0.014	0.002	2.70E-17	779353	BMI	BMI&Smoking	8.83E-05	69
20	15819495	rs8123881	A	G	0.870	-0.020	0.002	4.40E-16	793018	BMI	BMI-Only	8.41E-05	67
21	46435610	rs8126575	T	G	0.860	0.015	0.003	4.10E-09	743423	BMI	BMI-Only	4.78E-05	36
3	170724883	rs8192675	T	C	0.711	-0.015	0.002	1.40E-17	795515	BMI	BMI&Smoking	8.96E-05	71
6	35039188	rs820071	T	G	0.349	-0.012	0.002	1.40E-11	691544	BMI	BMI&Smoking	6.53E-05	45
1	205774839	rs823074	T	C	0.588	0.011	0.002	1.60E-10	689143	BMI	BMI&Smoking	6.30E-05	43
16	73606563	rs825680	A	T	0.583	0.010	0.002	6.70E-09	680731	BMI	BMI-Only	4.90E-05	33
12	49333248	rs833831	T	G	0.872	0.016	0.003	2.60E-09	667741	BMI	BMI-Only	5.26E-05	35
10	125220036	rs845084	A	G	0.268	0.014	0.002	1.30E-12	685413	BMI	BMI-Only	7.15E-05	49
7	28196413	rs849135	A	G	0.491	0.011	0.002	2.00E-11	793909	BMI	BMI-Only	5.85E-05	46
20	17102860	rs852056	T	C	0.242	0.013	0.002	1.80E-10	691874	BMI	BMI-Only	5.92E-05	41
16	4015729	rs879620	T	C	0.618	0.023	0.002	5.30E-38	688377	BMI	BMI&Smoking	2.39E-04	165
16	69556715	rs889398	T	C	0.425	-0.020	0.002	1.30E-32	789694	BMI	BMI&Smoking	1.90E-04	150
19	4060707	rs895330	C	G	0.808	0.020	0.002	5.50E-19	684271	BMI	BMI&Smoking	1.12E-04	76
7	127831580	rs896183	A	G	0.416	0.010	0.002	2.30E-09	758144	BMI	BMI-Only	4.75E-05	36
6	98539519	rs901630	T	C	0.397	-0.015	0.002	1.90E-18	794597	BMI	BMI&Smoking	9.28E-05	74
8	142630782	rs903959	A	T	0.397	0.011	0.002	1.60E-09	689895	BMI	BMI&Smoking	5.03E-05	35
1	154991389	rs905938	T	C	0.733	-0.015	0.002	1.20E-15	795227	BMI	BMI-Only	7.73E-05	61
1	202116238	rs9077	A	G	0.330	-0.014	0.002	3.50E-13	663139	BMI	BMI-Only	7.95E-05	53
4	60253877	rs925421	A	G	0.266	0.012	0.002	5.80E-09	674423	BMI	BMI&Smoking	4.99E-05	34
6	31892641	rs9267677	T	C	0.899	-0.021	0.003	1.60E-13	790710	BMI	BMI&Smoking	6.91E-05	55
6	83433228	rs9294260	A	G	0.473	0.015	0.002	1.80E-19	783533	BMI	BMI-Only	1.08E-04	84
6	53752062	rs9296723	T	C	0.638	-0.011	0.002	4.00E-09	690691	BMI	BMI-Only	5.02E-05	35
17	46669430	rs9299	T	C	0.647	0.012	0.002	3.60E-11	692577	BMI	BMI&Smoking	6.52E-05	45
2	50233352	rs930295	A	C	0.158	0.021	0.002	1.00E-19	690522	BMI	BMI&Smoking	1.22E-04	84
13	76435126	rs9318380	A	G	0.157	0.014	0.002	1.90E-09	689367	BMI	BMI&Smoking	5.15E-05	36
13	81012613	rs9318686	T	C	0.663	-0.011	0.002	1.00E-08	690542	BMI	BMI&Smoking	4.93E-05	34
5	111301546	rs9326846	A	G	0.689	-0.011	0.002	7.10E-09	688531	BMI	BMI&Smoking	4.69E-05	32
11	118365210	rs9332817	C	G	0.026	-0.038	0.006	1.70E-10	530761	BMI	BMI-Only	7.64E-05	41

2	79482643	rs934515	A	G	0.118	0.019	0.003	7.60E-12	686026	BMI	BMI&Smoking	6.84E-05	47
6	42676480	rs9349239	A	G	0.492	0.012	0.002	1.30E-12	687917	BMI	BMI-Only	7.49E-05	52
6	64159064	rs9361779	A	C	0.557	0.011	0.002	1.60E-10	690422	BMI	BMI-Only	6.06E-05	42
15	75131959	rs936227	A	G	0.389	-0.012	0.002	2.30E-12	793122	BMI	BMI-Only	6.07E-05	48
6	13189275	rs9367368	T	C	0.697	0.012	0.002	1.00E-11	786723	BMI	BMI-Only	5.74E-05	45
6	130354855	rs9388766	T	C	0.288	0.011	0.002	7.60E-10	793655	BMI	BMI&Smoking	4.62E-05	37
6	156670838	rs9397927	C	G	0.737	-0.012	0.002	1.40E-09	691528	BMI	BMI-Only	5.12E-05	35
1	34602870	rs9426003	A	G	0.295	-0.012	0.002	1.40E-09	682054	BMI	BMI&Smoking	5.46E-05	37
1	32191798	rs945211	C	G	0.636	0.013	0.002	4.50E-13	678874	BMI	BMI&Smoking	7.68E-05	52
6	9510030	rs9463175	T	C	0.348	-0.011	0.002	4.20E-10	771669	BMI	BMI-Only	5.23E-05	40
1	243684019	rs946824	T	C	0.141	0.021	0.003	1.10E-15	689849	BMI	BMI&Smoking	9.10E-05	63
6	55013291	rs9475173	A	G	0.654	0.011	0.002	6.60E-09	678491	BMI	BMI&Smoking	4.76E-05	32
6	119526350	rs9489622	A	G	0.516	0.010	0.002	2.80E-09	690131	BMI	BMI-Only	5.32E-05	37
13	28620036	rs9507983	T	C	0.607	-0.016	0.002	1.40E-18	692568	BMI	BMI-Only	1.08E-04	75
13	104090848	rs9514131	T	G	0.121	-0.015	0.003	5.60E-09	684854	BMI	BMI-Only	5.12E-05	35
13	56465597	rs9527455	A	C	0.232	-0.012	0.002	8.00E-09	689591	BMI	BMI&Smoking	4.96E-05	34
13	79563749	rs9530843	A	C	0.556	0.013	0.002	4.80E-13	674325	BMI	BMI-Only	7.50E-05	51
13	59178258	rs9538141	A	G	0.509	0.016	0.002	3.50E-21	676674	BMI	BMI&Smoking	1.38E-04	93
18	42598463	rs954018	A	G	0.305	-0.013	0.002	2.10E-13	795474	BMI	BMI-Only	6.56E-05	52
13	66205704	rs9540493	A	G	0.442	0.014	0.002	8.10E-17	785493	BMI	BMI-Only	8.51E-05	67
13	85903717	rs9547153	A	G	0.616	-0.010	0.002	8.70E-09	775400	BMI	BMI-Only	4.29E-05	33
13	67472713	rs9571687	A	C	0.329	-0.013	0.002	2.80E-12	690974	BMI	BMI&Smoking	7.43E-05	51
22	48875699	rs9615905	T	C	0.450	0.011	0.002	2.70E-10	690274	BMI	BMI-Only	6.07E-05	42
20	8308190	rs961917	C	G	0.725	0.012	0.002	2.60E-09	683843	BMI	BMI-Only	4.92E-05	34
13	54385284	rs962796	T	C	0.205	0.015	0.002	5.90E-12	692479	BMI	BMI&Smoking	6.53E-05	45
9	96484342	rs9650755	A	G	0.734	-0.015	0.002	2.80E-15	691183	BMI	BMI&Smoking	8.58E-05	59
3	56200887	rs965961	A	G	0.103	0.017	0.003	6.90E-10	691496	BMI	BMI&Smoking	5.46E-05	38
6	73922654	rs9688431	T	C	0.940	0.023	0.004	2.40E-11	789356	BMI	BMI-Only	5.52E-05	44
7	130466854	rs972283	A	G	0.485	0.010	0.002	5.10E-09	795592	BMI	BMI-Only	4.52E-05	36
16	9724750	rs977540	A	G	0.762	0.014	0.002	2.50E-13	789485	BMI	BMI&Smoking	6.88E-05	54
1	47684677	rs977747	T	G	0.405	0.017	0.002	1.30E-24	793546	BMI	BMI-Only	1.25E-04	99
14	35673470	rs9806058	A	T	0.877	0.016	0.003	4.00E-10	690566	BMI	BMI-Only	5.76E-05	40

3	41310470	rs9814633	A	G	0.343	0.012	0.002	2.10E-11	691120	BMI	BMI&Smoking	6.65E-05	46
3	185834499	rs9816226	A	T	0.180	-0.032	0.002	1.60E-52	778333	BMI	BMI&Smoking	3.04E-04	237
3	107343299	rs9817583	A	G	0.170	0.014	0.002	2.50E-09	690869	BMI	BMI-Only	5.14E-05	35
3	84221774	rs9827823	T	C	0.851	0.019	0.002	1.20E-15	691925	BMI	BMI-Only	9.35E-05	65
3	13433158	rs9845966	T	G	0.452	0.011	0.002	2.50E-10	778076	BMI	BMI-Only	4.90E-05	38
3	125205106	rs9848399	A	G	0.875	0.016	0.003	2.10E-10	692421	BMI	BMI-Only	5.75E-05	40
6	50803050	rs987237	A	G	0.820	-0.041	0.002	9.30E-84	795612	BMI	BMI&Smoking	4.77E-04	379
17	4755424	rs9904177	A	G	0.726	-0.012	0.002	2.30E-09	689596	BMI	BMI-Only	4.96E-05	34
18	60739250	rs9951893	T	C	0.525	-0.012	0.002	3.30E-11	682456	BMI	BMI&Smoking	6.70E-05	46
1	97431052	rs995258	A	C	0.578	0.014	0.002	4.50E-17	692419	BMI	BMI&Smoking	1.04E-04	72
18	50441817	rs9964756	T	G	0.103	-0.016	0.003	2.90E-09	691906	BMI	BMI&Smoking	4.96E-05	34
19	19378671	rs998732	A	G	0.842	0.017	0.002	2.00E-14	793852	BMI	BMI-Only	7.61E-05	60
14	94006257	rs9989141	T	C	0.639	0.016	0.002	3.60E-21	752768	BMI	BMI&Smoking	1.21E-04	91

***Instrumental variables of smoking status***

1	8481016	rs301805	G	T	0.559	0.021	0.004	2.80E-09	632802	Smklnit	-	5.58E-05	35
1	44037685	rs3001723	A	G	0.321	0.034	0.004	8.12E-18	632802	Smklnit	-	1.17E-04	74
1	50625979	rs6669839	T	C	0.204	0.026	0.004	3.36E-09	628384	Smklnit	-	5.57E-05	35
1	66470206	rs2186122	T	A	0.561	0.026	0.004	3.61E-13	632802	Smklnit	-	8.34E-05	53
1	73766037	rs7555507	T	C	0.496	-0.024	0.004	1.14E-11	632802	Smklnit	-	7.28E-05	46
1	74999713	rs2344508	A	G	0.546	-0.022	0.004	8.82E-10	632802	Smklnit	-	5.94E-05	38
1	87905828	rs2050586	C	G	0.355	-0.021	0.004	3.00E-08	632802	Smklnit	-	4.85E-05	31
1	91196176	rs12042107	C	T	0.527	-0.022	0.004	4.22E-10	632802	Smklnit	-	6.16E-05	39
1	154206358	rs12027999	C	T	0.124	-0.033	0.005	5.76E-10	632802	Smklnit	-	6.07E-05	38
1	210304319	rs2046850	T	C	0.187	-0.025	0.004	3.03E-08	632802	Smklnit	-	4.85E-05	31
2	623976	rs6728726	C	T	0.829	0.035	0.005	6.73E-14	632802	Smklnit	-	8.86E-05	56
2	45154908	rs528301	A	G	0.605	0.029	0.004	8.41E-16	632802	Smklnit	-	1.02E-04	65
2	51341259	rs10490159	T	C	0.388	0.022	0.004	2.59E-09	632802	Smklnit	-	5.61E-05	35
2	58169418	rs2678897	A	G	0.625	0.020	0.004	3.51E-08	632802	Smklnit	-	4.80E-05	30
2	60024857	rs7585579	G	C	0.505	0.022	0.004	1.88E-09	575705	Smklnit	-	6.27E-05	36
2	60475008	rs359240	A	G	0.615	0.020	0.004	2.37E-08	632802	Smklnit	-	4.93E-05	31
2	104088751	rs266047	A	G	0.529	-0.031	0.004	3.36E-16	575705	Smklnit	-	1.16E-04	67
2	137542847	rs35702515	T	G	0.162	0.025	0.004	2.43E-09	632802	Smklnit	-	5.63E-05	36

2	146143090	rs13030994	A	G	0.485	0.036	0.004	3.56E-24	632802	SmkInit	-	1.63E-04	103
2	155682556	rs1445649	C	T	0.525	0.024	0.004	1.68E-11	632802	SmkInit	-	7.16E-05	45
2	162802993	rs12474587	T	G	0.404	0.028	0.004	1.25E-14	632802	SmkInit	-	9.40E-05	59
2	182034448	rs6433897	C	T	0.754	0.022	0.004	3.16E-08	632802	SmkInit	-	4.84E-05	31
2	200937901	rs2107300	G	C	0.845	-0.027	0.005	3.27E-08	632802	SmkInit	-	4.82E-05	30
2	226332033	rs4674993	G	A	0.207	-0.025	0.004	1.32E-08	632802	SmkInit	-	5.10E-05	32
3	5725560	rs11721059	T	C	0.474	0.020	0.004	2.17E-08	632802	SmkInit	-	4.95E-05	31
3	50224225	rs12632110	G	A	0.647	-0.023	0.004	4.78E-10	632802	SmkInit	-	6.13E-05	39
3	52886605	rs2276825	C	T	0.252	0.023	0.004	2.38E-08	632802	SmkInit	-	4.93E-05	31
3	75009019	rs11712680	C	A	0.174	-0.027	0.005	3.51E-09	632802	SmkInit	-	5.51E-05	35
3	85624131	rs6788098	T	A	0.623	-0.031	0.004	1.91E-17	628384	SmkInit	-	1.15E-04	72
3	85766025	rs9835772	T	A	0.235	0.024	0.004	6.32E-09	628384	SmkInit	-	5.36E-05	34
3	85996562	rs7631735	T	G	0.603	0.020	0.004	2.79E-08	628384	SmkInit	-	4.90E-05	31
3	117804154	rs1154693	G	A	0.856	0.033	0.005	3.12E-11	632802	SmkInit	-	6.97E-05	44
4	28456089	rs292071	C	T	0.244	0.024	0.004	4.08E-09	632802	SmkInit	-	5.47E-05	35
4	67825894	rs993700	C	T	0.766	-0.026	0.004	1.53E-09	632802	SmkInit	-	5.77E-05	36
4	94052854	rs1160685	G	C	0.478	0.021	0.004	7.20E-09	632802	SmkInit	-	5.29E-05	33
4	139711726	rs13136052	T	G	0.407	-0.020	0.004	3.35E-08	632802	SmkInit	-	4.82E-05	30
4	140887493	rs1355334	A	T	0.683	0.024	0.004	9.59E-11	632802	SmkInit	-	6.62E-05	42
4	147797214	rs10001365	A	G	0.405	-0.025	0.004	6.65E-12	632802	SmkInit	-	7.44E-05	47
5	60374912	rs6893752	G	A	0.766	-0.024	0.004	3.25E-09	632802	SmkInit	-	5.53E-05	35
5	87756918	rs4571506	T	C	0.492	-0.028	0.004	1.09E-14	632802	SmkInit	-	9.43E-05	60
5	94202167	rs27003	C	T	0.682	0.024	0.004	2.64E-10	632802	SmkInit	-	6.30E-05	40
5	103816655	rs12186738	T	G	0.154	-0.033	0.005	3.42E-11	632802	SmkInit	-	6.94E-05	44
5	106829219	rs17534089	G	A	0.124	-0.032	0.005	5.01E-10	632802	SmkInit	-	6.12E-05	39
5	154839646	rs1385108	T	C	0.239	0.025	0.004	3.00E-09	632802	SmkInit	-	5.56E-05	35
5	157743295	rs11135030	T	C	0.309	0.023	0.004	4.41E-09	632802	SmkInit	-	5.44E-05	34
5	166989513	rs4044321	G	A	0.642	-0.028	0.004	6.08E-14	632802	SmkInit	-	8.90E-05	56
6	52916062	rs222449	T	A	0.793	-0.025	0.004	1.08E-08	632802	SmkInit	-	5.17E-05	33
6	67405337	rs10498846	T	C	0.473	0.021	0.004	6.62E-09	632802	SmkInit	-	5.31E-05	34
6	69470709	rs10945141	A	G	0.262	0.022	0.004	4.18E-08	632802	SmkInit	-	4.76E-05	30
6	93842446	rs12662631	T	C	0.299	0.021	0.004	4.26E-08	632802	SmkInit	-	4.74E-05	30



6	98748008	rs9401770	A	G	0.273	0.028	0.004	3.47E-12	632802	SmkInit	-	7.65E-05	48
6	101270345	rs846799	G	A	0.495	-0.021	0.004	3.87E-09	632802	SmkInit	-	5.48E-05	35
6	108994161	rs3800227	G	A	0.701	0.023	0.004	1.93E-08	632802	SmkInit	-	4.99E-05	32
6	111644332	rs240963	C	T	0.836	-0.041	0.005	2.16E-17	632802	SmkInit	-	1.14E-04	72
7	1708080	rs4236259	G	T	0.499	-0.025	0.004	3.35E-12	632802	SmkInit	-	7.66E-05	48
7	1870794	rs6948707	G	T	0.420	0.022	0.004	4.50E-10	632802	SmkInit	-	6.15E-05	39
7	3406478	rs4549681	G	A	0.525	-0.024	0.004	2.29E-10	575705	SmkInit	-	6.98E-05	40
7	69735251	rs12112638	G	A	0.275	-0.025	0.004	1.34E-09	632802	SmkInit	-	5.82E-05	37
7	96629103	rs11768481	A	C	0.347	-0.023	0.004	7.00E-10	632802	SmkInit	-	6.00E-05	38
7	99185406	rs12333760	C	T	0.204	-0.029	0.005	1.44E-09	632802	SmkInit	-	5.78E-05	37
7	117523709	rs10233018	G	A	0.503	0.027	0.004	2.75E-14	632802	SmkInit	-	9.15E-05	58
7	133589846	rs10279261	A	G	0.619	-0.021	0.004	5.00E-09	632802	SmkInit	-	5.40E-05	34
8	27426077	rs1565735	A	T	0.212	-0.038	0.004	3.42E-17	632802	SmkInit	-	1.12E-04	71
8	59814666	rs13261666	T	G	0.522	-0.027	0.004	3.90E-14	632802	SmkInit	-	9.04E-05	57
8	65073605	rs12545053	G	A	0.397	0.020	0.004	2.43E-08	632802	SmkInit	-	4.91E-05	31
8	92775386	rs10956809	C	G	0.442	-0.021	0.004	6.32E-09	632802	SmkInit	-	5.33E-05	34
8	93201036	rs1899896	T	C	0.286	0.026	0.004	1.04E-11	632802	SmkInit	-	7.32E-05	46
9	3014254	rs4543592	C	T	0.468	0.022	0.004	7.46E-10	632802	SmkInit	-	5.99E-05	38
9	8282399	rs7024924	C	T	0.188	0.026	0.005	3.96E-08	632802	SmkInit	-	4.77E-05	30
9	11081182	rs17234745	C	T	0.153	-0.029	0.005	1.53E-08	632802	SmkInit	-	5.06E-05	32
9	86707289	rs2378662	A	G	0.556	0.021	0.004	4.16E-09	632802	SmkInit	-	5.45E-05	34
10	8803551	rs10905461	C	T	0.718	-0.024	0.004	7.35E-09	632802	SmkInit	-	5.28E-05	33
10	21766969	rs10159545	G	C	0.375	0.026	0.004	1.84E-12	632802	SmkInit	-	7.84E-05	50
10	63674885	rs7921378	C	G	0.463	-0.025	0.004	8.26E-13	632802	SmkInit	-	8.09E-05	51
10	103186838	rs7901883	A	G	0.246	-0.025	0.004	7.98E-09	632802	SmkInit	-	5.26E-05	33
10	104563808	rs12356821	C	G	0.140	0.039	0.005	6.27E-15	632802	SmkInit	-	9.61E-05	61
10	125680419	rs9423279	G	C	0.641	-0.021	0.004	3.21E-08	632802	SmkInit	-	4.84E-05	31
11	7950797	rs4523689	G	A	0.408	-0.021	0.004	1.55E-08	632802	SmkInit	-	5.06E-05	32
11	27679916	rs6265	T	C	0.203	-0.032	0.005	3.77E-12	632802	SmkInit	-	7.62E-05	48
11	85980958	rs7929518	G	A	0.765	0.024	0.004	1.56E-08	632802	SmkInit	-	5.06E-05	32
11	111992273	rs117695734	G	A	0.034	-0.055	0.009	3.84E-10	632802	SmkInit	-	6.19E-05	39
11	112911004	rs7938812	G	T	0.424	0.044	0.004	2.71E-33	632802	SmkInit	-	2.29E-04	145

12	16748721	rs11057005	G	A	0.430	-0.021	0.004	4.85E-09	632802	SmkInit	-	5.40E-05	34
12	56508409	rs4759228	C	G	0.270	-0.022	0.004	3.58E-08	632802	SmkInit	-	4.80E-05	30
12	69655167	rs7969559	G	A	0.688	-0.024	0.004	7.31E-10	632802	SmkInit	-	5.99E-05	38
12	121389500	rs1971318	T	C	0.141	0.029	0.005	7.06E-09	632802	SmkInit	-	5.29E-05	33
13	38357471	rs3904512	A	G	0.429	-0.021	0.004	3.23E-09	632802	SmkInit	-	5.53E-05	35
13	66947124	rs9540729	T	A	0.501	-0.020	0.004	3.82E-08	632802	SmkInit	-	4.77E-05	30
13	100548329	rs7322872	T	C	0.782	-0.026	0.004	3.58E-09	632802	SmkInit	-	5.50E-05	35
14	29500130	rs76214862	C	A	0.202	-0.025	0.005	3.99E-08	630973	SmkInit	-	4.79E-05	30
15	47873773	rs8039513	G	A	0.204	0.026	0.005	5.68E-09	632802	SmkInit	-	5.36E-05	34
15	47935843	rs1435741	A	G	0.425	0.029	0.004	2.64E-16	632802	SmkInit	-	1.06E-04	67
15	83922387	rs12441907	A	C	0.186	-0.029	0.005	1.06E-10	632802	SmkInit	-	6.59E-05	42
16	717085	rs7197072	T	C	0.238	-0.025	0.004	2.77E-09	632802	SmkInit	-	5.58E-05	35
16	17575065	rs12923427	T	C	0.204	-0.024	0.004	4.44E-08	632802	SmkInit	-	4.72E-05	30
16	65604652	rs4785836	C	T	0.398	-0.020	0.004	2.26E-08	632802	SmkInit	-	4.95E-05	31
16	87443734	rs1050847	T	C	0.505	-0.022	0.004	1.67E-09	632802	SmkInit	-	5.74E-05	36
17	2072949	rs11658881	G	A	0.418	0.020	0.004	2.43E-08	632802	SmkInit	-	4.91E-05	31
17	7795972	rs11078713	G	A	0.454	-0.020	0.004	2.23E-08	632802	SmkInit	-	4.95E-05	31
17	30657058	rs7224742	T	C	0.595	-0.021	0.004	1.43E-08	632802	SmkInit	-	5.07E-05	32
18	42659922	rs11873164	T	C	0.135	-0.028	0.005	1.31E-08	632802	SmkInit	-	5.10E-05	32
18	50026142	rs6508144	G	C	0.563	-0.021	0.004	7.97E-09	632802	SmkInit	-	5.26E-05	33
18	50863861	rs62098013	A	G	0.346	0.020	0.004	3.66E-08	632802	SmkInit	-	4.79E-05	30
18	72535282	rs11872397	A	G	0.252	-0.025	0.004	1.43E-09	632802	SmkInit	-	5.78E-05	37
19	4474725	rs76608582	A	C	0.039	-0.050	0.008	1.94E-09	632802	SmkInit	-	5.69E-05	36
20	25615202	rs1883526	C	T	0.963	0.046	0.008	4.06E-08	626680	SmkInit	-	4.80E-05	30
20	31175258	rs1555445	T	A	0.337	0.023	0.004	3.65E-09	626680	SmkInit	-	5.55E-05	35
20	54387374	rs56820925	T	C	0.347	-0.022	0.004	1.73E-08	571412	SmkInit	-	5.56E-05	32
21	40555561	rs117143374	C	T	0.120	0.029	0.005	2.76E-08	632802	SmkInit	-	4.88E-05	31
22	28781758	rs134529	C	T	0.349	-0.020	0.004	4.85E-08	632802	SmkInit	-	4.71E-05	30

***Instrumental variables of age of smoking initiation***

2	63622470	rs7599208	T	C	0.558	-0.020	0.003	1.71E-12	262990	AgeSmk	-	1.89E-04	50
2	225450161	rs3768886	C	G	0.328	0.017	0.003	7.37E-09	262990	AgeSmk	-	1.27E-04	33
3	85699040	rs11915747	G	C	0.354	0.021	0.003	3.83E-13	261206	AgeSmk	-	2.02E-04	53

4	2881256	rs624833	G	T	0.309	0.017	0.003	8.61E-09	262990	AgeSmk	-	1.26E-04	33
8	27344719	rs11780471	A	G	0.064	0.038	0.006	7.00E-11	262990	AgeSmk	-	1.62E-04	42
15	75360268	rs140485736	A	G	0.013	0.065	0.012	1.41E-08	262990	AgeSmk	-	1.22E-04	32
17	31554533	rs319748	A	G	0.711	-0.017	0.003	3.08E-08	262990	AgeSmk	-	1.17E-04	31

***Instrumental variables of smoking cessation***

8	42602668	rs60749569	T	A	0.076	-0.053	0.009	1.95E-08	312821	SmkCes	-	1.01E-04	31
9	136467344	rs3025327	C	G	0.094	0.085	0.008	1.96E-24	312821	SmkCes	-	3.32E-04	104
9	136503256	rs3025388	G	A	0.165	-0.037	0.007	4.57E-08	312821	SmkCes	-	9.56E-05	30
11	16379226	rs7127006	A	G	0.278	0.032	0.006	2.24E-08	312821	SmkCes	-	1.00E-04	31
15	76629609	rs3866543	G	T	0.515	0.030	0.005	5.02E-09	312821	SmkCes	-	1.09E-04	34
15	78883813	rs518425	G	A	0.307	-0.037	0.006	7.57E-11	312821	SmkCes	-	1.36E-04	42
19	41353107	rs56113850	C	T	0.568	-0.055	0.005	2.52E-26	312821	SmkCes	-	3.61E-04	113
20	61984317	rs6011779	T	C	0.786	-0.055	0.007	2.04E-16	303403	SmkCes	-	2.23E-04	68
20	62018289	rs6089904	T	A	0.031	-0.078	0.012	6.53E-11	303403	SmkCes	-	1.41E-04	43
22	41854446	rs9607805	T	C	0.694	0.034	0.006	2.97E-09	312821	SmkCes	-	1.13E-04	35

***Instrumental variables of cigarettes per day***

1	154548521	rs2072659	G	C	0.105	-0.065	0.009	1.71E-12	262014	CigDay	-	1.90E-04	50
3	16872929	rs2084533	T	C	0.319	0.034	0.006	1.22E-08	263954	CigDay	-	1.23E-04	32
3	48935583	rs7431710	A	G	0.644	-0.035	0.006	1.82E-09	262173	CigDay	-	1.38E-04	36
4	67053769	rs11725618	C	T	0.287	0.036	0.006	4.67E-09	263954	CigDay	-	1.30E-04	34
4	67891641	rs13141210	T	C	0.480	-0.031	0.006	2.77E-08	263954	CigDay	-	1.17E-04	31
6	26214473	rs806798	C	T	0.543	-0.031	0.006	2.48E-08	262173	CigDay	-	1.19E-04	31
7	32333642	rs215600	A	G	0.640	-0.049	0.006	1.10E-17	263954	CigDay	-	2.78E-04	73
8	27442127	rs73229090	A	C	0.113	0.055	0.009	2.44E-10	263954	CigDay	-	1.52E-04	40
8	42579203	rs58379124	C	T	0.748	0.067	0.007	9.00E-25	263954	CigDay	-	4.01E-04	106
8	64604218	rs790564	C	A	0.719	-0.041	0.006	3.97E-11	263954	CigDay	-	1.65E-04	44
9	136460224	rs56116178	G	A	0.085	0.070	0.009	7.23E-15	263954	CigDay	-	2.29E-04	60
9	136502369	rs3025383	C	T	0.180	-0.058	0.007	2.22E-16	263954	CigDay	-	2.55E-04	67
11	16377044	rs7951365	C	T	0.306	0.039	0.006	6.63E-11	263954	CigDay	-	1.61E-04	43
11	46465361	rs75494138	T	C	0.062	0.060	0.011	1.45E-08	263954	CigDay	-	1.22E-04	32
11	113448762	rs7928017	A	C	0.413	-0.033	0.006	3.14E-09	263954	CigDay	-	1.33E-04	35
15	59155050	rs632811	G	A	0.351	-0.037	0.006	1.03E-08	219449	CigDay	-	1.49E-04	33

15	78801394	rs11852372	C	A	0.328	0.182	0.006	#####	257341	CigDay	-	3.69E-03	953
15	79076885	rs2869862	G	A	0.274	-0.052	0.006	4.15E-16	257341	CigDay	-	2.57E-04	66
15	79164636	rs79409323	C	T	0.021	-0.119	0.017	8.10E-13	257341	CigDay	-	1.99E-04	51
15	79198760	rs76164573	G	T	0.047	-0.072	0.013	3.78E-08	257341	CigDay	-	1.18E-04	30
16	52074123	rs2386571	C	A	0.570	-0.032	0.006	1.03E-08	262014	CigDay	-	1.25E-04	33
16	89772619	rs4785587	A	G	0.511	-0.034	0.006	1.27E-09	262014	CigDay	-	1.41E-04	37
19	4060707	rs895330	G	C	0.206	-0.039	0.007	2.68E-08	263954	CigDay	-	1.17E-04	31
19	41321074	rs147893869	G	C	0.023	-0.180	0.018	3.48E-24	257341	CigDay	-	4.00E-04	103
19	41324392	rs11671669	A	G	0.034	-0.149	0.015	1.82E-22	257341	CigDay	-	3.69E-04	95
19	41353107	rs56113850	C	T	0.568	0.107	0.006	1.10E-81	257341	CigDay	-	1.42E-03	366
19	41371458	rs111240159	T	C	0.011	0.139	0.024	8.14E-09	257341	CigDay	-	1.29E-04	33
20	31047533	rs2424888	A	G	0.405	0.033	0.006	2.76E-09	263954	CigDay	-	1.34E-04	35
20	61986949	rs2273500	C	T	0.159	0.068	0.008	2.47E-18	263954	CigDay	-	2.89E-04	76

\*Summary statistics of SNPs were retrieved from the largest available meta-analysis of genome wide association studies (GWASs) for BMI<sup>[1]</sup> and tobacco use<sup>[2]</sup>. Chr, chromosome; EAF, allele frequency of effect allele; SE, standard error of beta; SampleSize, available sample size for each variant in according studies; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; SNP Type, only for genetic variants of BMI, SNP was defined as "BMI&Smoking SNP" if associated with both BMI and any one of the four smoking phenotypes, otherwise defined as "BMI-Only SNP". R<sup>2</sup>, variance in exposure explained by each variant, calculated as:  $R^2 = 2 * \text{Beta}^2 * \text{EAF} * (1 - \text{EAF}) / (2 * \text{Beta}^2 * \text{EAF} * (1 - \text{EAF}) + 2 * \text{SE}^2 * \text{SampleSize} * \text{EAF} * (1 - \text{EAF}))^{[3]}$ ; F-statistic calculated as:  $F\text{-statistic} = R^2 * (\text{SampleSize} - 2) / (1 - R^2)^{[4]}$ .

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**Table S2. F-statistic and R<sup>2</sup> for instrumental variables of BMI, smoking status, age of smoking initiation, smoking cessation, and cigarettes per day**

<b>Exposure</b>	<b>F<sub>min</sub></b>	<b>F<sub>max</sub></b>	<b>F<sub>mean</sub></b>	<b>F<sub>median</sub></b>	<b>F<sub>sum</sub> (N.SNPs)</b>	<b>R<sup>2</sup><sub>sum</sub></b>	<b>F<sub>TS</sub></b>
BMI	31	1360	64	47	53523 (842)	7.33%	8.41
SmkInit	30	145	41	35	4492 (110)	0.71%	2.60
AgeSmk	31	53	39	33	274 (7)	0.10%	1.30
SmkCes	30	113	53	38	531 (10)	0.17%	1.55
CigDay	30	953	92	40	2656 (29)	1.03%	1.74

F-statistic: a statistic used to evaluate the strength of instruments; R<sup>2</sup>: the proportion of phenotypic variance explained by all genetic instruments; F<sub>min</sub>: The minimum value of F-statistics of instrumental variables (IVs) for each exposure; F<sub>max</sub>: The maximum value of F-statistics of IVs for each exposure; F<sub>mean</sub>: Mean value of F-statistics of IVs for each exposure; F<sub>median</sub>: Median F-statistics of IVs for each exposure; F<sub>sum</sub>: Sum of F-statistics of IVs for each exposure; N.SNPs: Number of SNPs for each exposure; R<sup>2</sup><sub>sum</sub>: Sum of R<sup>2</sup> of IVs for each exposure; F<sub>TS</sub>: a modified F-statistic which was used to evaluate the strength of instruments to predict one exposure conditional on the other exposures using two sample summary data; BMI: body mass index; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day.

**Table S3. Causal relationships of BMI on lung cancer and histological subtypes estimated by approach of MR-Weighted median, MR-Weighted mode, and MR-Egger**

Outcome	N.SNPs	MR-Weighted median		MR-Weighted mode		MR-Egger			
		OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	$P_{inter}^*$	$I_{GX}^{2\#}$
<b>Using BMI-All SNPs</b>									
Overall	791	1.11 (1.00-1.24)	0.059	1.07 (0.82-1.39)	0.631	1.17 (0.94-1.46)	0.161	0.897	0.838
Adeno	800	0.97 (0.84-1.11)	0.644	0.96 (0.68-1.35)	0.806	1.02 (0.76-1.36)	0.913	0.930	0.808
Squam	793	1.29 (1.09-1.52)	0.003	1.17 (0.80-1.70)	0.421	1.35 (0.98-1.86)	0.065	0.969	0.845
Small	795	1.88 (1.43-2.46)	4.51E-06	1.81 (0.97-3.38)	0.061	1.71 (1.06-2.77)	0.029	0.956	0.838
<b>Using BMI&amp;Smoking SNPs</b>									
Overall	422	1.22 (1.06-1.40)	0.007	1.23 (0.86-1.75)	0.263	1.19 (0.88-1.60)	0.256	0.607	0.861
Adeno	430	1.01 (0.84-1.21)	0.913	0.96 (0.66-1.39)	0.829	0.94 (0.67-1.31)	0.703	0.352	0.865
Squam	427	1.34 (1.08-1.65)	0.008	1.19 (0.77-1.85)	0.440	1.26 (0.82-1.93)	0.285	0.422	0.869
Small	423	1.91 (1.36-2.67)	1.70E-04	1.87 (0.83-4.21)	0.133	1.88 (1.01-3.49)	0.047	0.950	0.864
<b>Using BMI-Only SNPs</b>									
Overall	368	0.95 (0.79-1.14)	0.568	0.95 (0.70-1.28)	0.723	1.06 (0.76-1.46)	0.745	0.981	0.787
Adeno	369	0.92 (0.74-1.13)	0.413	0.94 (0.53-1.66)	0.823	1.06 (0.60-1.86)	0.853	0.532	0.561
Squam	365	1.17 (0.89-1.53)	0.255	1.18 (0.72-1.91)	0.513	1.37 (0.83-2.25)	0.214	0.550	0.788
Small	371	1.80 (1.13-2.87)	0.014	1.87 (0.86-4.07)	0.114	1.40 (0.64-3.05)	0.396	0.727	0.782

BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR; \*P value for intercept test of MR-Egger; #An adapted  $I^2$  statistics to quantify the strength of NOME (No Measurement Error) violation for instruments used for MR-Egger regression.

**Table S4. Causal relationships of smoking behaviors on lung cancer and histological subtypes estimated by univariable MR**

Outcome	N.SNPs	MR-IVW		MR-Weighted median		MR-Weighted mode		MR-Egger			
		OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	P <sub>inter</sub> *	I <sub>Gx</sub> <sup>2#</sup>
<b>Smoking status</b>											
Overall	96	1.57 (1.39-1.76)	1.34E-13	1.62 (1.38-1.90)	2.89E-09	1.65 (1.07-2.55)	0.025	1.71 (0.93-3.15)	0.083	0.768	0.239
Adeno	98	1.38 (1.19-1.60)	1.82E-05	1.40 (1.14-1.74)	0.002	1.33 (0.80-2.20)	0.265	1.12 (0.54-2.35)	0.759	0.578	0.252
Squam	101	1.82 (1.50-2.20)	1.09E-09	1.83 (1.43-2.35)	2.24E-06	1.72 (0.95-3.10)	0.071	3.50 (1.30-9.43)	0.013	0.189	0.241
Small	103	1.65 (1.27-2.15)	1.62E-04	1.48 (1.02-2.14)	0.039	1.12 (0.45-2.80)	0.803	1.80 (0.48-6.71)	0.381	0.896	0.276
<b>Age of smoking initiation</b>											
Overall	6	0.32 (0.09-1.15)	0.080	0.43 (0.18-0.99)	0.048	0.66 (0.24-1.78)	0.412	0.00 (0.00-0.52)	0.026	0.145	0
Adeno	6	0.48 (0.09-2.59)	0.394	0.52 (0.16-1.68)	0.276	0.77 (0.13-4.75)	0.782	0.00 (0.00-3.75)	0.113	0.230	0
Squam	5	0.16 (0.04-0.70)	0.015	0.08 (0.02-0.31)	2.85E-04	0.05 (0.00-1.05)	0.054	0.03 (0.00-22.72)	0.300	0.649	0
Small	6	0.15 (0.04-0.57)	0.005	0.14 (0.03-0.77)	0.023	0.30 (0.02-3.70)	0.349	0.01 (0.00-4.23)	0.136	0.425	0
<b>Smoking cessation</b>											
Overall	8	2.05 (0.46-9.21)	0.348	2.17 (1.49-3.16)	5.57E-05	2.19 (1.47-3.26)	1.10E-04	0.50 (0.00-57.00)	0.772	0.557	0.739
Adeno	9	1.60 (0.45-5.73)	0.468	1.27 (0.79-2.04)	0.326	1.32 (0.80-2.18)	0.274	0.29 (0.01-15.28)	0.537	0.399	0.728
Squam	10	2.62 (0.64-10.75)	0.181	2.94 (1.71-5.07)	1.04E-04	2.97 (1.64-5.38)	3.20E-04	0.80 (0.01-72.72)	0.923	0.600	0.705
Small	8	4.18 (0.77-22.78)	0.099	6.23 (2.69-14.42)	1.93E-05	6.38 (2.53-16.10)	8.54E-05	0.49 (0.00-92.79)	0.791	0.429	0.746
<b>Cigarettes per day</b>											

Overall	28	2.89 (2.33-3.58)	3.59E-22	3.32 (2.83-3.89)	4.26E-49	3.62 (3.16-4.14)	1.67E-76	4.25 (3.03-5.95)	7.30E-09	0.011	0.963
Adeno	28	2.57 (2.06-3.20)	6.20E-17	2.93 (2.43-3.54)	1.97E-29	3.11 (2.64-3.67)	6.74E-42	3.87 (2.74-5.47)	1.67E-14	0.009	0.963
Squam	29	3.27 (2.60-4.10)	1.66E-24	4.07 (3.30-5.02)	3.57E-39	3.96 (3.23-4.84)	9.08E-41	4.29 (2.91-6.33)	1.79E-13	0.105	0.962
Small	27	3.32 (2.52-4.37)	1.80E-17	3.80 (2.75-5.27)	9.23E-16	3.78 (2.79-5.13)	1.34E-17	4.13 (2.55-6.69)	8.72E-09	0.290	0.965

Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR; \**P* value for intercept test of MR-Egger; #An adapted *I*<sup>2</sup> statistics to quantify the strength of NOME (No Measurement Error) violation for instruments used for MR-Egger regression.



**Table S5. Causal relationships between BMI and Smoking phenotypes estimated by bidirectional MR**

Outcome	N.SNPs	MR-IVW		MR-Weighted median		MR-Weighted mode		MR-Egger		$P_{inter}^*$	$I_{GX}^{2\#}$
		OR (95% CI)	$P$	OR (95% CI)	$P$	OR (95% CI)	$P$	OR (95% CI)	$P$		
<b><i>BMI predict Smoking using BMI-All SNPs</i></b>											
SmkInit	841	1.24 (1.19-1.28)	6.60E-36	1.21 (1.17-1.26)	8.74E-28	1.15 (1.05-1.27)	0.004	1.27 (1.15-1.40)	1.19E-06	0.520	0.837
AgeSmk	842	0.91 (0.90-0.93)	3.68E-26	0.92 (0.90-0.94)	2.39E-12	0.99 (0.92-1.06)	0.728	1.00 (0.95-1.05)	0.856	2.69E-04	0.837
SmkCes	842	1.14 (1.11-1.18)	7.20E-15	1.14 (1.09-1.19)	4.48E-08	1.11 (0.94-1.31)	0.232	1.03 (0.94-1.14)	0.504	0.035	0.837
CigDay	842	1.39 (1.34-1.44)	7.54E-64	1.38 (1.31-1.45)	1.16E-37	1.47 (1.23-1.76)	2.10E-05	1.33 (1.19-1.49)	6.64E-07	0.421	0.837
<b><i>BMI predict Smoking using BMI&amp;Smoking SNPs</i></b>											
SmkInit	451	1.34 (1.27-1.42)	2.21E-27	1.41 (1.34-1.48)	4.46E-41	1.87 (1.36-2.57)	1.11E-04	1.31 (1.13-1.53)	4.77E-04	0.777	0.863
AgeSmk	451	0.88 (0.86-0.90)	2.44E-23	0.89 (0.86-0.92)	7.99E-13	0.89 (0.81-0.98)	0.016	0.98 (0.91-1.05)	0.517	2.58E-03	0.863
SmkCes	451	1.19 (1.12-1.25)	3.28E-10	1.18 (1.11-1.26)	3.07E-07	1.21 (1.03-1.42)	0.019	1.02 (0.88-1.19)	0.764	0.044	0.863
CigDay	451	1.61 (1.53-1.71)	1.89E-62	1.56 (1.46-1.67)	4.06E-39	1.51 (1.32-1.73)	1.28E-09	1.49 (1.27-1.75)	1.41E-06	0.303	0.863
<b><i>BMI predict Smoking using BMI-Only SNPs</i></b>											
SmkInit	390	1.10 (1.06-1.13)	3.17E-10	1.12 (1.05-1.18)	2.00E-04	1.15 (1.05-1.27)	0.002	1.11 (1.02-1.21)	0.019	0.747	0.778
AgeSmk	390	0.96 (0.94-0.98)	4.22E-04	0.98 (0.94-1.02)	0.246	0.99 (0.93-1.06)	0.880	1.07 (1.00-1.15)	0.043	8.90E-04	0.777
SmkCes	390	1.09 (1.04-1.13)	5.01E-05	1.08 (1.01-1.15)	0.016	1.02 (0.88-1.18)	0.814	1.01 (0.89-1.14)	0.891	0.214	0.777
CigDay	390	1.12 (1.07-1.17)	4.83E-07	1.07 (1.01-1.15)	0.033	0.92 (0.78-1.08)	0.311	0.95 (0.83-1.09)	0.461	0.013	0.777

Exposure	N.SNPs	MR-IVW		MR-Weighted median		MR-Weighted mode		MR-Egger			
		OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	$P_{inter}^*$	$I_{GX}^{2\#}$
<b>Smoking predict BMI</b>											
SmkInit	64	1.21 (1.10-1.33)	5.65E-05	1.14 (1.09-1.20)	1.95E-09	1.11 (0.96-1.28)	0.146	1.41 (0.86-2.34)	0.176	0.544	0.238
AgeSmk	5	0.88 (0.55-1.41)	0.608	1.10 (0.93-1.30)	0.254	1.20 (1.03-1.40)	0.023	1.22 (0.12-12.16)	0.865	0.796	0
SmkCes	5	0.96 (0.84-1.10)	0.577	0.95 (0.89-1.02)	0.194	0.91 (0.82-1.01)	0.071	0.75 (0.56-1.00)	0.052	0.167	0.707
CigDay	5	1.23 (1.05-1.43)	0.009	1.21 (1.12-1.30)	3.16E-07	1.21 (1.11-1.32)	1.08E-05	1.93 (0.64-5.89)	0.246	0.478	0.427

BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; N.SNPs: number of SNPs used in MR; \*P value for intercept test of MR-Egger; #An adapted  $I^2$  statistics to quantify the strength of NOME (No Measurement Error) violation for instruments used for MR-Egger regression.

**Table S6. Causal relationships of BMI on smoking phenotype adjusted for other smoking phenotypes estimated by multivariable MR**

Exposure	N.SNPs	MVMMR-IVW		MVMMR-Egger		<i>P</i> <sub>inter</sub> *
		OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>	
<b><i>Smoking status</i></b>						0.040
BMI	837	1.13 (1.09-1.17)	1.22E-10	1.23 (1.12-1.35)	8.90E-06	
AgeSmk	5	0.54 (0.48-0.61)	2.01E-23	0.54 (0.48-0.61)	4.14E-24	
SmkCes	2	1.16 (1.09-1.23)	1.46E-06	1.16 (1.10-1.24)	9.05E-07	
CigDay	8	1.04 (0.99-1.10)	0.121	1.04 (0.99-1.10)	0.114	
<b><i>Age of smoking initiation</i></b>						0.004
BMI	828	0.97 (0.95-0.98)	2.57E-04	1.02 (0.98-1.07)	0.322	
SmkInit	61	0.84 (0.82-0.87)	1.76E-33	0.84 (0.82-0.87)	1.16E-33	
SmkCes	3	0.97 (0.94-1.00)	0.055	0.97 (0.94-1.00)	0.062	
CigDay	9	0.95 (0.92-0.98)	2.59E-04	0.95 (0.93-0.98)	4.50E-04	
<b><i>Smoking cessation</i></b>						0.523
BMI	828	1.03 (0.99-1.07)	0.110	1.01 (0.92-1.10)	0.903	
SmkInit	61	1.21 (1.14-1.28)	9.47E-10	1.21 (1.14-1.28)	8.75E-10	
AgeSmk	5	0.85 (0.74-0.97)	0.017	0.85 (0.74-0.97)	0.020	
CigDay	8	1.14 (1.08-1.21)	3.25E-06	1.14 (1.08-1.21)	3.91E-06	
<b><i>Cigarettes per day</i></b>						0.080
BMI	829	1.29 (1.23-1.35)	1.36E-26	1.17 (1.05-1.32)	0.006	
SmkInit	61	0.99 (0.92-1.08)	0.887	1.00 (0.92-1.08)	0.951	
AgeSmk	5	0.72 (0.61-0.86)	2.45E-04	0.73 (0.61-0.87)	4.84E-04	
SmkCes	6	1.43 (1.32-1.55)	2.34E-18	1.43 (1.32-1.55)	4.35E-18	

MVMMR-IVW: multivariable Mendelian randomization using inverse variance weighted approach; MVMMR-Egger: multivariable Mendelian randomization using Egger regression; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; N.SNPs: number of SNPs used in MR; \**P* value for intercept test of multivariable MR Egger.

**Table S7. Causal relationships of smoking phenotype on BMI and adjusted for collider effect of lung cancer estimated by multivariable MR**

Exposure	N.SNPs	MVMMR-IVW		MVMMR-Egger		<i>P</i> <sub>inter</sub> *
		OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>	
<b><i>Smoking phenotypes predict BMI</i></b>						0.638
SmkInit	63	1.19 (1.04-1.35)	0.011	1.19 (1.04-1.35)	0.011	
AgeSmk	5	0.77 (0.51-1.17)	0.218	0.75 (0.49-1.16)	0.192	
SmkCes	3	0.73 (0.60-0.89)	0.002	0.73 (0.60-0.89)	0.002	
CigDay	8	1.29 (1.12-1.49)	4.40E-04	1.33 (1.10-1.62)	0.004	
<b><i>Smoking phenotypes predict BMI considering collider effect of overall lung cancer</i></b>						0.692
Overall	2	1.00 (0.91-1.09)	0.980	1.01 (0.91-1.12)	0.855	
SmkInit	55	1.20 (1.04-1.39)	0.011	1.21 (1.04-1.40)	0.011	
AgeSmk	5	0.77 (0.50-1.18)	0.233	0.76 (0.49-1.18)	0.224	
SmkCes	3	0.72 (0.58-0.89)	0.003	0.73 (0.58-0.90)	0.004	
CigDay	8	1.29 (1.11-1.50)	0.001	1.29 (1.11-1.50)	0.001	
<b><i>Smoking phenotypes predict BMI considering collider effect of lung adenocarcinoma</i></b>						0.274
Adeno	5	0.96 (0.91-1.01)	0.135	0.98 (0.92-1.05)	0.553	
SmkInit	55	1.22 (1.06-1.40)	0.006	1.24 (1.08-1.43)	0.003	
AgeSmk	5	0.77 (0.51-1.18)	0.228	0.77 (0.50-1.17)	0.223	
SmkCes	3	0.73 (0.59-0.89)	0.002	0.74 (0.60-0.91)	0.004	
CigDay	8	1.29 (1.12-1.50)	5.52E-04	1.29 (1.12-1.50)	5.54E-04	
<b><i>Smoking phenotypes predict BMI considering collider effect of lung squamous cell carcinoma</i></b>						0.924
Squam	1	0.98 (0.92-1.04)	0.525	0.98 (0.91-1.06)	0.647	
SmkInit	58	1.13 (0.98-1.30)	0.093	1.13 (0.98-1.31)	0.099	
AgeSmk	4	0.60 (0.38-0.96)	0.033	0.60 (0.38-0.97)	0.035	
SmkCes	3	0.76 (0.62-0.94)	0.010	0.76 (0.62-0.94)	0.010	
CigDay	8	1.30 (1.13-1.51)	4.09E-04	1.31 (1.12-1.52)	5.77E-04	
<b><i>Smoking phenotypes predict BMI considering collider effect of small cell lung cancer</i></b>						0.753
Small	1	1.02 (0.96-1.08)	0.562	1.01 (0.93-1.10)	0.804	
SmkInit	60	1.17 (1.03-1.34)	0.019	1.17 (1.02-1.34)	0.025	
AgeSmk	5	0.76 (0.50-1.17)	0.212	0.77 (0.50-1.17)	0.222	
SmkCes	3	0.72 (0.58-0.89)	0.002	0.72 (0.58-0.90)	0.004	
CigDay	8	1.27 (1.10-1.48)	0.001	1.27 (1.09-1.47)	0.002	

MVMMR-IVW: multivariable Mendelian randomization using inverse variance weighted approach; MVMMR-Egger: multivariable Mendelian randomization using Egger regression; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR; \**P* value for intercept test of multivariable MR Egger.

**Table S8. Causal relationships of BMI on lung cancer and histological subtypes estimated by univariable MR using different genome-wide significance threshold**

Outcome	Threshold using $5 \times 10^{-8}$			Threshold using $1 \times 10^{-8}^*$		
	N.SNPs	OR (95% CI)	P	N.SNPs	OR (95% CI)	P
<b>Using BMI-All SNPs</b>						
Overall	912	1.19 (1.11-1.28)	1.27E-06	791	1.19 (1.10-1.28)	7.24E-06
Adeno	919	1.00 (0.92-1.10)	0.914	800	1.00 (0.91-1.10)	0.935
Squam	918	1.37 (1.23-1.52)	2.96E-09	793	1.36 (1.22-1.52)	3.59E-08
Small	916	1.72 (1.47-2.01)	2.04E-11	795	1.73 (1.47-2.04)	5.50E-11
<b>Using BMI&amp;Smoking SNPs</b>						
Overall	477	1.29 (1.16-1.42)	7.94E-07	422	1.28 (1.15-1.42)	2.86E-06
Adeno	485	1.09 (0.97-1.22)	0.141	430	1.09 (0.97-1.22)	0.160
Squam	483	1.48 (1.28-1.71)	7.79E-08	427	1.48 (1.28-1.72)	1.91E-07
Small	478	1.86 (1.51-2.30)	7.21E-09	423	1.84 (1.48-2.29)	3.76E-08
<b>Using BMI-Only SNPs</b>						
Overall	431	1.07 (0.97-1.18)	0.189	368	1.06 (0.95-1.18)	0.287
Adeno	430	0.89 (0.77-1.03)	0.120	369	0.89 (0.76-1.03)	0.121
Squam	431	1.21 (1.04-1.41)	0.012	365	1.19 (1.01-1.40)	0.036
Small	434	1.54 (1.21-1.96)	4.36E-04	371	1.60 (1.24-2.06)	2.70E-04

\*The threshold used in this study. BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR.

**Table S9. Causal relationships of smoking behaviors on lung cancer and histological subtypes estimated by univariable MR using different genome-wide significance threshold**

Outcome	Threshold using $5 \times 10^{-8}$ *			Threshold using $1 \times 10^{-8}$		
	N.SNPs	OR (95% CI)	P	N.SNPs	OR (95% CI)	P
<b>Smoking status</b>						
Overall	96	1.57 (1.39-1.76)	1.34E-13	68	1.59 (1.39-1.82)	1.69E-11
Adeno	98	1.38 (1.19-1.60)	1.82E-05	70	1.33 (1.13-1.56)	5.71E-04
Squam	101	1.82 (1.50-2.20)	1.09E-09	70	2.07 (1.68-2.56)	7.8E-12
Small	103	1.65 (1.27-2.15)	1.62E-04	70	1.53 (1.15-2.05)	0.004
<b>Age of smoking initiation</b>						
Overall	6	0.32 (0.09-1.15)	0.080	5	0.33 (0.07-1.52)	0.156
Adeno	6	0.48 (0.09-2.59)	0.394	5	0.51 (0.07-3.76)	0.505
Squam	5	0.16 (0.04-0.70)	0.015	4	0.19 (0.03-1.14)	0.069
Small	6	0.15 (0.04-0.57)	0.005	5	0.13 (0.03-0.55)	0.006
<b>Smoking cessation</b>						
Overall	8	2.05 (0.46-9.21)	0.348	7	1.96 (0.37-10.38)	0.431
Adeno	9	1.60 (0.45-5.73)	0.468	7	1.39 (0.30-6.48)	0.675
Squam	10	2.62 (0.64-10.75)	0.181	7	2.33 (0.37-14.77)	0.370
Small	8	4.18 (0.77-22.78)	0.099	7	3.82 (0.58-25.07)	0.162
<b>Cigarettes per day</b>						
Overall	28	2.89 (2.33-3.58)	3.59E-22	20	2.92 (2.29-3.73)	5.45E-18
Adeno	28	2.57 (2.06-3.20)	6.20E-17	20	2.64 (2.08-3.35)	1.12E-15
Squam	29	3.27 (2.60-4.10)	1.66E-24	21	3.22 (2.50-4.16)	1.84E-19
Small	27	3.32 (2.52-4.37)	1.80E-17	20	3.28 (2.47-4.35)	2.63E-16

\*The threshold used in this study. Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR.

**Table S10. Causal relationships of BMI and smoking phenotypes on lung cancer and histological subtypes estimated by multivariable MR using different genome-wide significance threshold**

Exposure	BMI using $5 \times 10^{-8}$				BMI using $1 \times 10^{-8}^*$			
	Smoking using $5 \times 10^{-8}$		Smoking using $1 \times 10^{-8}$		Smoking using $5 \times 10^{-8}^*$		Smoking using $1 \times 10^{-8}$	
	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P	OR (95% CI)	P
<b><i>Overall lung cancer</i></b>								
BMI	0.96 (0.89-1.04)	0.364	0.96 (0.89-1.04)	0.370	0.95 (0.87-1.03)	0.224	0.95 (0.87-1.03)	0.230
SmkInit	1.50 (1.31-1.70)	1.08E-09	1.52 (1.33-1.74)	5.95E-10	1.48 (1.30-1.70)	6.87E-09	1.53 (1.33-1.76)	1.73E-09
AgeSmk	0.93 (0.71-1.22)	0.600	0.96 (0.73-1.26)	0.749	0.90 (0.68-1.20)	0.477	0.92 (0.69-1.23)	0.580
SmkCes	1.33 (1.17-1.52)	1.93E-05	1.32 (1.16-1.51)	3.40E-05	1.33 (1.16-1.53)	4.81E-05	1.34 (1.16-1.54)	4.75E-05
CigDay	1.26 (1.12-1.42)	9.33E-05	1.26 (1.12-1.42)	1.54E-04	1.29 (1.14-1.46)	5.99E-05	1.27 (1.12-1.44)	1.60E-04
<b><i>Lung adenocarcinoma</i></b>								
BMI	0.86 (0.78-0.96)	0.006	0.87 (0.78-0.96)	0.007	0.86 (0.77-0.96)	0.008	0.86 (0.77-0.96)	0.009
SmkInit	1.45 (1.23-1.72)	1.12E-05	1.44 (1.22-1.71)	2.53E-05	1.44 (1.21-1.71)	3.71E-05	1.43 (1.19-1.71)	8.92E-05
AgeSmk	0.95 (0.67-1.34)	0.754	0.97 (0.68-1.37)	0.846	0.88 (0.61-1.27)	0.489	0.90 (0.62-1.31)	0.573
SmkCes	1.19 (1.01-1.41)	0.041	1.20 (1.01-1.42)	0.036	1.18 (0.99-1.41)	0.070	1.19 (1.00-1.43)	0.055
CigDay	1.11 (0.96-1.29)	0.171	1.11 (0.96-1.29)	0.165	1.08 (0.92-1.26)	0.346	1.08 (0.92-1.27)	0.355
<b><i>Lung squamous cell carcinoma</i></b>								
BMI	1.03 (0.91-1.16)	0.672	1.02 (0.91-1.15)	0.691	1.02 (0.90-1.16)	0.746	1.02 (0.90-1.15)	0.799
SmkInit	1.56 (1.28-1.89)	7.61E-06	1.62 (1.33-1.98)	1.69E-06	1.54 (1.26-1.88)	2.82E-05	1.67 (1.36-2.06)	1.14E-06
AgeSmk	0.87 (0.57-1.31)	0.498	0.88 (0.58-1.33)	0.539	0.90 (0.57-1.41)	0.636	0.91 (0.58-1.43)	0.675
SmkCes	1.50 (1.23-1.83)	5.19E-05	1.52 (1.25-1.85)	3.14E-05	1.48 (1.20-1.83)	2.39E-04	1.53 (1.24-1.88)	8.43E-05

CigDay	1.40 (1.17-1.66)	1.65E-04	1.37 (1.15-1.64)	3.65E-04	1.44 (1.20-1.73)	1.11E-04	1.39 (1.16-1.68)	4.51E-04
<b><i>Small cell lung cancer</i></b>								
BMI	1.26 (1.05-1.51)	0.013	1.26 (1.05-1.52)	0.013	1.28 (1.06-1.55)	0.011	1.27 (1.05-1.54)	0.013
SmkInit	1.17 (0.87-1.57)	0.288	1.20 (0.89-1.62)	0.243	1.14 (0.84-1.53)	0.403	1.16 (0.85-1.58)	0.348
AgeSmk	0.69 (0.37-1.29)	0.248	0.72 (0.38-1.36)	0.317	0.79 (0.41-1.53)	0.485	0.80 (0.41-1.56)	0.503
SmkCes	1.70 (1.26-2.30)	4.99E-04	1.71 (1.26-2.31)	5.02E-04	1.78 (1.30-2.43)	3.27E-04	1.85 (1.35-2.54)	1.49E-04
CigDay	1.67 (1.28-2.17)	1.72E-04	1.65 (1.26-2.17)	2.47E-04	1.71 (1.30-2.26)	1.42E-04	1.70 (1.28-2.26)	2.11E-04

\*The threshold used in this study. MVMR-IVW: multivariable Mendelian randomization using inverse variance weighted approach; MVMR-Egger: multivariable Mendelian randomization using Egger regression; BMI: body mass index; SmkInit: smoking status, Ever/Never; AgeSmk: age of smoking initiation; SmkCes: smoking cessation, Current/Former; CigDay: cigarettes per day.



**Table S11. Cochran's Q test for heterogeneity among MR analyses\***

Outcome	Exposure	MR-IVW			MR-Egger		
		Q	Q_df	Q_pval	Q	Q_df	Q_pval
Overall	BMI-All SNPs	1174.30	790	1.44E-17	1174.28	789	1.18E-17
	BMI&Smoking SNPs	709.37	421	4.73E-17	708.92	420	3.98E-17
	BMI-Only SNPs	453.20	367	1.41E-03	453.20	366	1.26E-03
	SmkInit	125.52	95	1.97E-02	125.40	94	1.69E-02
	AgeSmk	28.27	5	3.23E-05	15.58	4	3.63E-03
	SmkCes	327.45	7	8.23E-67	307.62	6	1.90E-63
	CigDay	173.14	27	2.85E-23	134.74	26	1.22E-16
Adeno	BMI-All SNPs	974.85	799	1.82E-05	974.84	798	1.64E-05
	BMI&Smoking SNPs	499.68	429	1.03E-02	498.67	428	1.03E-02
	BMI-Only SNPs	469.81	368	2.53E-04	469.31	367	2.35E-04
	SmkInit	105.87	97	2.53E-01	105.53	96	2.38E-01
	AgeSmk	26.04	5	8.76E-05	17.35	4	1.65E-03
	SmkCes	153.42	8	3.78E-29	137.56	7	1.65E-26
	CigDay	97.37	27	6.94E-10	74.42	26	1.48E-06
Squam	BMI-All SNPs	1008.97	792	2.36E-07	1008.97	791	2.08E-07
	BMI&Smoking SNPs	593.97	426	1.25E-07	593.07	425	1.20E-07
	BMI-Only SNPs	405.87	364	0.06	405.47	363	0.06
	SmkInit	140.63	100	4.64E-03	138.18	99	5.71E-03
	AgeSmk	9.73	4	4.52E-02	8.97	3	2.97E-02
	SmkCes	164.70	9	7.84E-31	158.79	8	2.86E-30
	CigDay	79.45	28	8.05E-07	71.96	27	5.86E-06
Small	BMI-All SNPs	903.06	794	4.18E-03	903.06	793	3.89E-03
	BMI&Smoking SNPs	492.47	422	1.00E-02	492.47	421	9.17E-03
	BMI-Only SNPs	409.13	370	0.08	408.99	369	0.07
	SmkInit	108.36	102	0.31	108.34	101	0.29
	AgeSmk	2.10	5	8.35E-01	1.32	4	8.58E-01
	SmkCes	65.29	7	1.32E-11	58.31	6	9.90E-11
	CigDay	42.72	26	0.02	40.82	25	0.02
BMI	SmkInit	1647.86	63	9.00E-303	1638.03	62	1.98E-301
	AgeSmk	124.62	4	5.51E-26	121.40	3	3.86E-26
	SmkCes	37.15	4	1.68E-07	17.71	3	5.05E-04
	CigDay	53.96	4	5.37E-11	44.29	3	1.31E-09
SmkInit	BMI-All SNPs	2865.32	840	8.49E-219	2863.91	839	7.56E-219
	BMI&Smoking SNPs	2345.57	450	3.28E-253	2345.15	449	1.70E-253
	BMI-Only SNPs	400.32	389	0.34	400.21	388	0.32
AgeSmk	BMI-All SNPs	1299.03	841	3.07E-22	1278.66	840	8.95E-21
	BMI&Smoking SNPs	912.62	450	1.11E-33	894.32	449	8.05E-32
	BMI-Only SNPs	345.97	389	0.94	334.75	388	0.98
SmkCes	BMI-All SNPs	1438.45	841	5.22E-34	1430.88	840	1.93E-33
	BMI&Smoking SNPs	1105.02	450	6.45E-57	1095.10	449	7.83E-56
	BMI-Only SNPs	323.23	389	0.99	321.68	388	0.99
CigDay	BMI-All SNPs	1588.11	841	1.58E-48	1586.89	840	1.53E-48
	BMI&Smoking SNPs	1087.37	450	1.20E-54	1084.80	449	1.65E-54
	BMI-Only SNPs	339.70	389	0.97	333.45	388	0.98

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\*The Q statistic has a chi-squared distribution on N-1 degrees of freedom (df) under the null hypothesis that all genetic variants are valid IVs and the same causal effect is identified by all variants. N is the number of genetic variants.<sup>[1]</sup> Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI.

1. Bowden J, Davey Smith G, Haycock PC, Burgess S. Consistent Estimation in Mendelian Randomization with Some Invalid Instruments Using a Weighted Median Estimator. *Genet Epidemiol* 2016;40: 304-14.

**Table S12. Causal relationship of SmkCes on lung cancer and histological subtypes with and without outliers rs518425 and rs56113850**

Outcome	MR-IVW with outliers			MR-IVW without outliers		
	N.SNPs	OR (95% CI)	<i>P</i>	N.SNPs	OR (95% CI)	<i>P</i>
Overall	8	2.05 (0.46-9.21)	0.348	6	2.44 (1.77-3.38)	6.28E-08
Adeno	9	1.60 (0.45-5.73)	0.468	7	1.77 (1.16-2.68)	0.008
Squam	10	2.62 (0.64-10.75)	0.181	8	3.52 (2.03-6.09)	7.12E-06
Small	8	4.18 (0.77-22.78)	0.099	6	5.69 (2.93-11.07)	2.92E-07

Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR.

**Table S13. Causal relationships of BMI on lung cancer among ever-/never-smokers estimated by univariable MR**

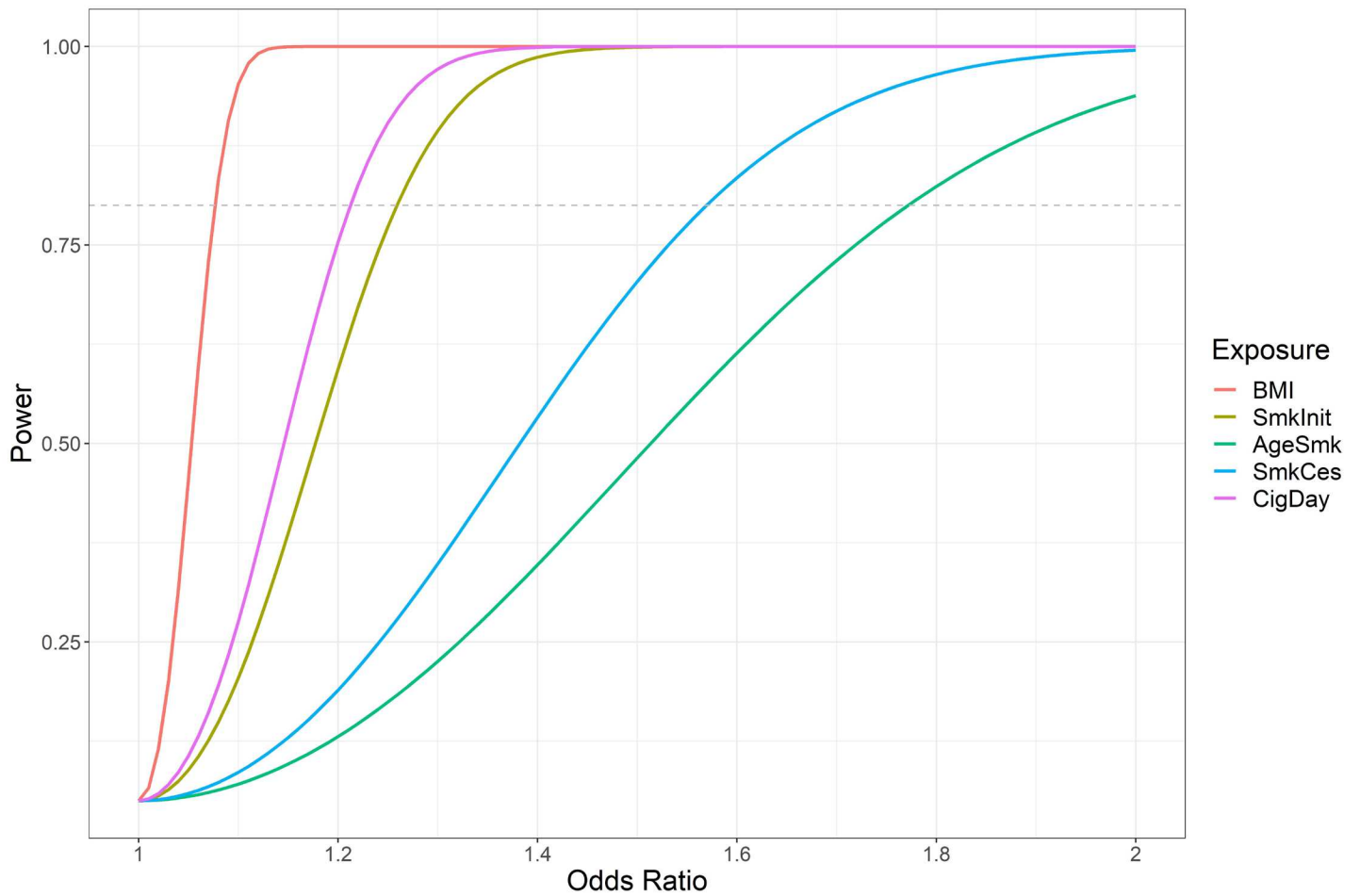
<b>Outcome</b>	<b>N.SNPs</b>	<b>OR (95% CI)</b>	<b>P</b>
<b><i>Using BMI-All SNPs</i></b>			
Ever	790	1.11 (1.02-1.21)	0.014
Never	808	0.90 (0.75-1.08)	0.250
<b><i>Using BMI&amp;Smoking SNPs</i></b>			
Ever	421	1.18 (1.05-1.32)	0.005
Never	429	1.03 (0.80-1.32)	0.843
<b><i>Using BMI-Only SNPs</i></b>			
Ever	368	1.02 (0.90-1.15)	0.739
Never	378	0.73 (0.55-0.97)	0.030

BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; Ever: lung cancer among ever-smokers; Never: lung cancer among never-smokers; N.SNPs: number of SNPs used in MR.

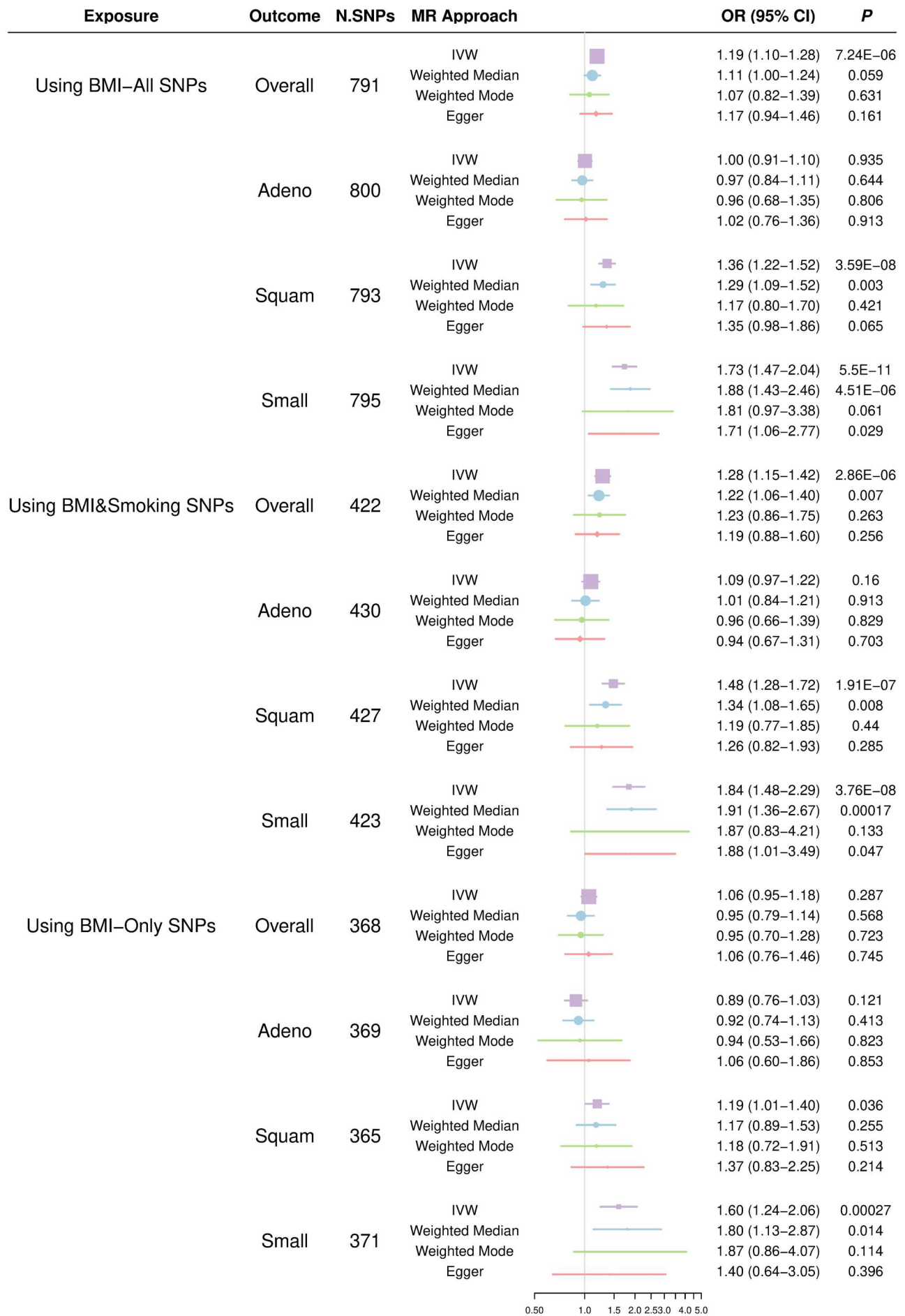
**Table S14. Causal relationships of BMI and smoking phenotypes on lung cancer among ever-/never-smokers estimated by multivariable MR**

Exposure	N.SNPs	MVMMR-IVW		MVMMR-Egger		<i>P</i> <sub>inter</sub> *
		OR (95% CI)	<i>P</i>	OR (95% CI)	<i>P</i>	
<b><i>Lung cancer among ever-smokers</i></b>						0.723
BMI	776	0.96 (0.87-1.05)	0.362	0.95 (0.86-1.05)	0.347	
SmkInit	57	1.11 (0.95-1.29)	0.201	1.08 (0.88-1.33)	0.471	
AgeSmk	5	0.81 (0.57-1.13)	0.216	0.80 (0.57-1.13)	0.212	
SmkCes	3	1.18 (1.01-1.40)	0.042	1.18 (1.00-1.39)	0.044	
CigDay	8	1.25 (1.08-1.44)	0.002	1.25 (1.08-1.44)	0.002	
<b><i>Lung cancer among never-smokers</i></b>						0.935
BMI	794	0.82 (0.65-1.02)	0.069	0.81 (0.65-1.02)	0.070	
SmkInit	58	1.84 (1.29-2.63)	0.001	1.82 (1.13-2.93)	0.014	
AgeSmk	5	1.03 (0.48-2.25)	0.933	1.03 (0.47-2.25)	0.935	
SmkCes	3	1.18 (0.81-1.71)	0.383	1.18 (0.81-1.71)	0.384	
CigDay	8	0.84 (0.60-1.16)	0.277	0.84 (0.60-1.16)	0.277	

MVMMR-IVW: multivariable Mendelian randomization using inverse variance weighted approach; MVMMR-Egger: multivariable Mendelian randomization using Egger regression; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; N.SNPs: number of SNPs used in MR; \**P* value for intercept test of multivariable MR Egger.



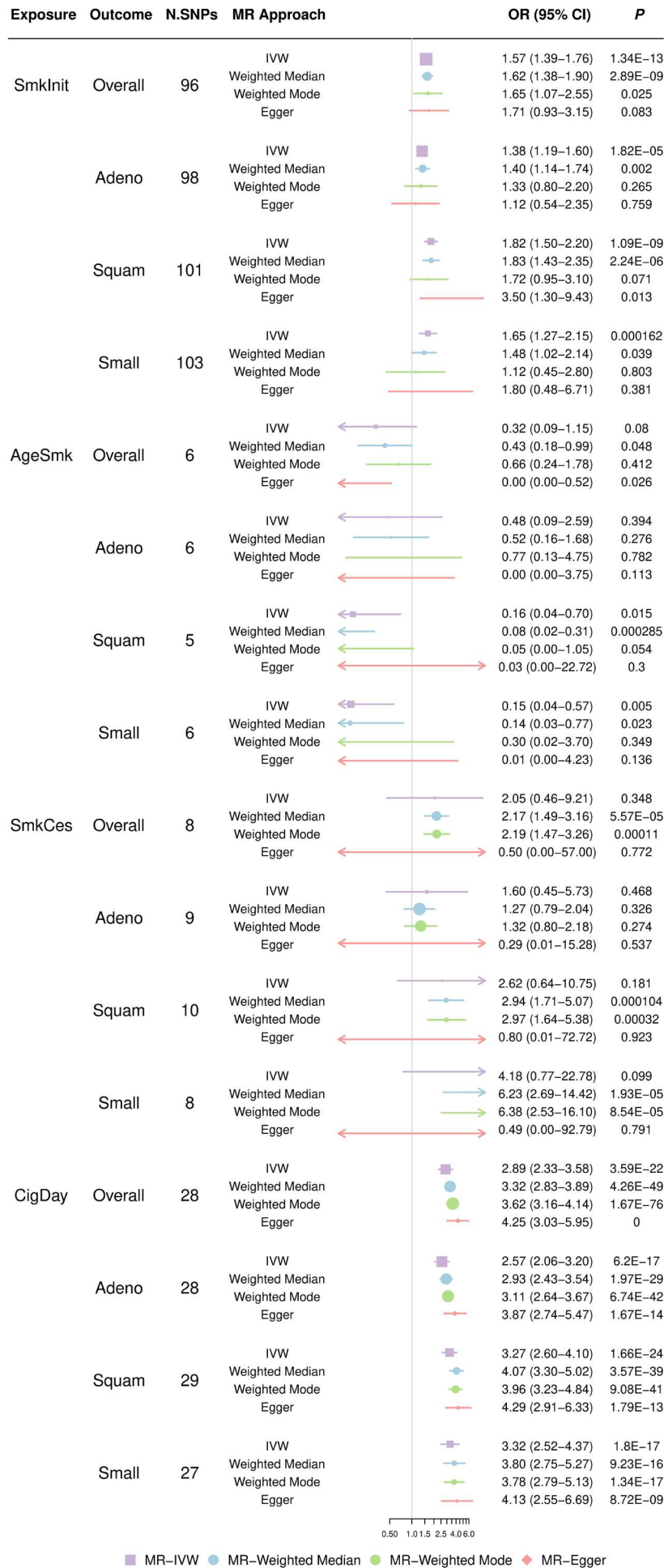
**Figure S1.** Statistical power estimation based on the sample size of lung cancer GWAS (29,266 cases and 56,450 controls), with an alpha level of 0.05 and the proportion of variance explained by genetic instruments for corresponding exposures. BMI: body mass index; SmkInit: smoking status, Ever/Never; AgeSmk: age of smoking initiation; SmkCes: smoking cessation, Current/Former; CigDay: cigarettes per day. The grey dotted line indicates 80% statistical power.



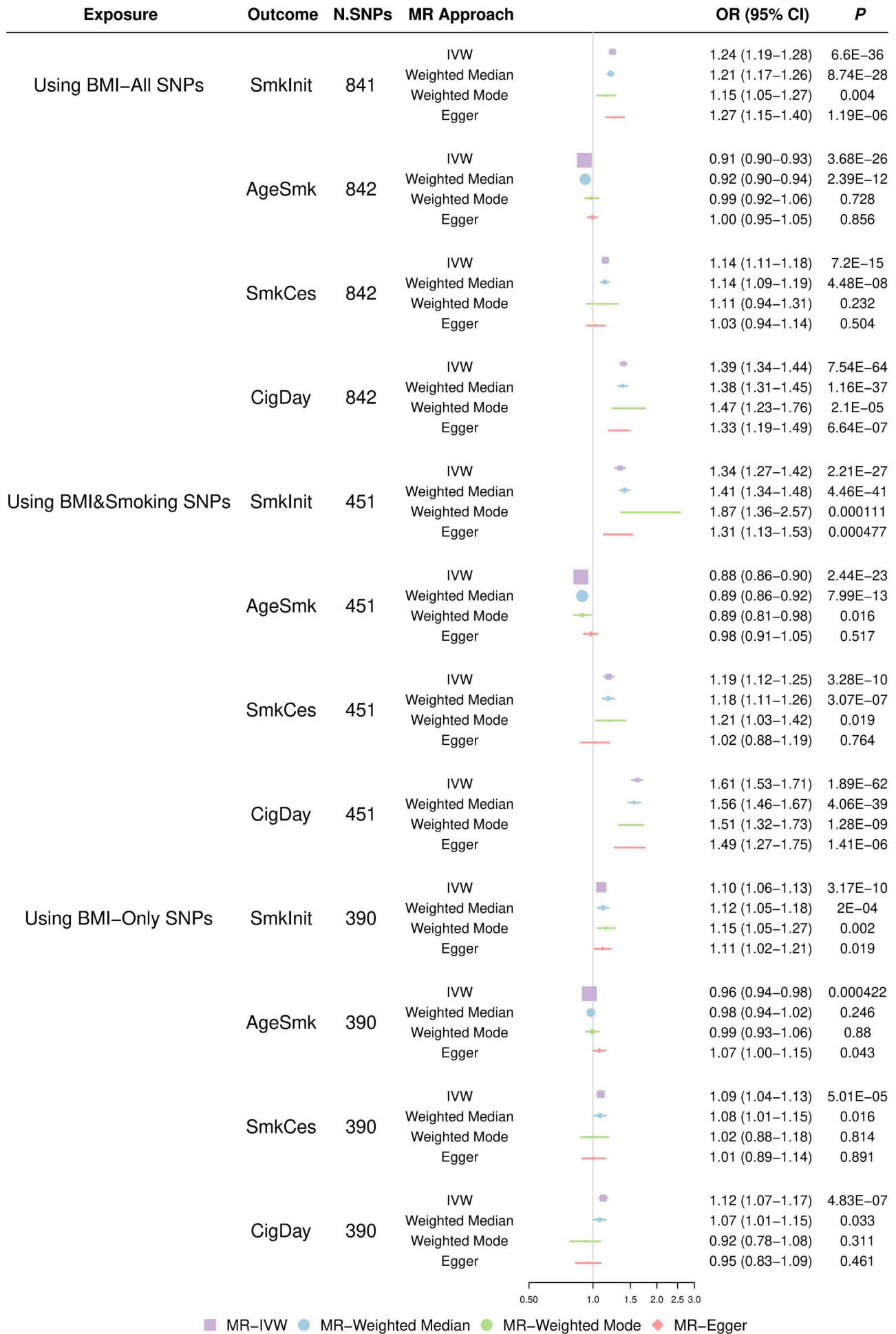
■ MR-IVW ● MR-Weighted Median ● MR-Weighted Mode ◆ MR-Egger

**Figure S2.** Odds ratios and 95% confidence intervals for the effect of BMI on lung cancer and histological subtypes estimated by univariable MR using BMI-All SNPs, BMI&Smoking SNPs, and BMI-Only. BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR, similarly hereinafter. Colors indicate for four approaches used in MR analyses.



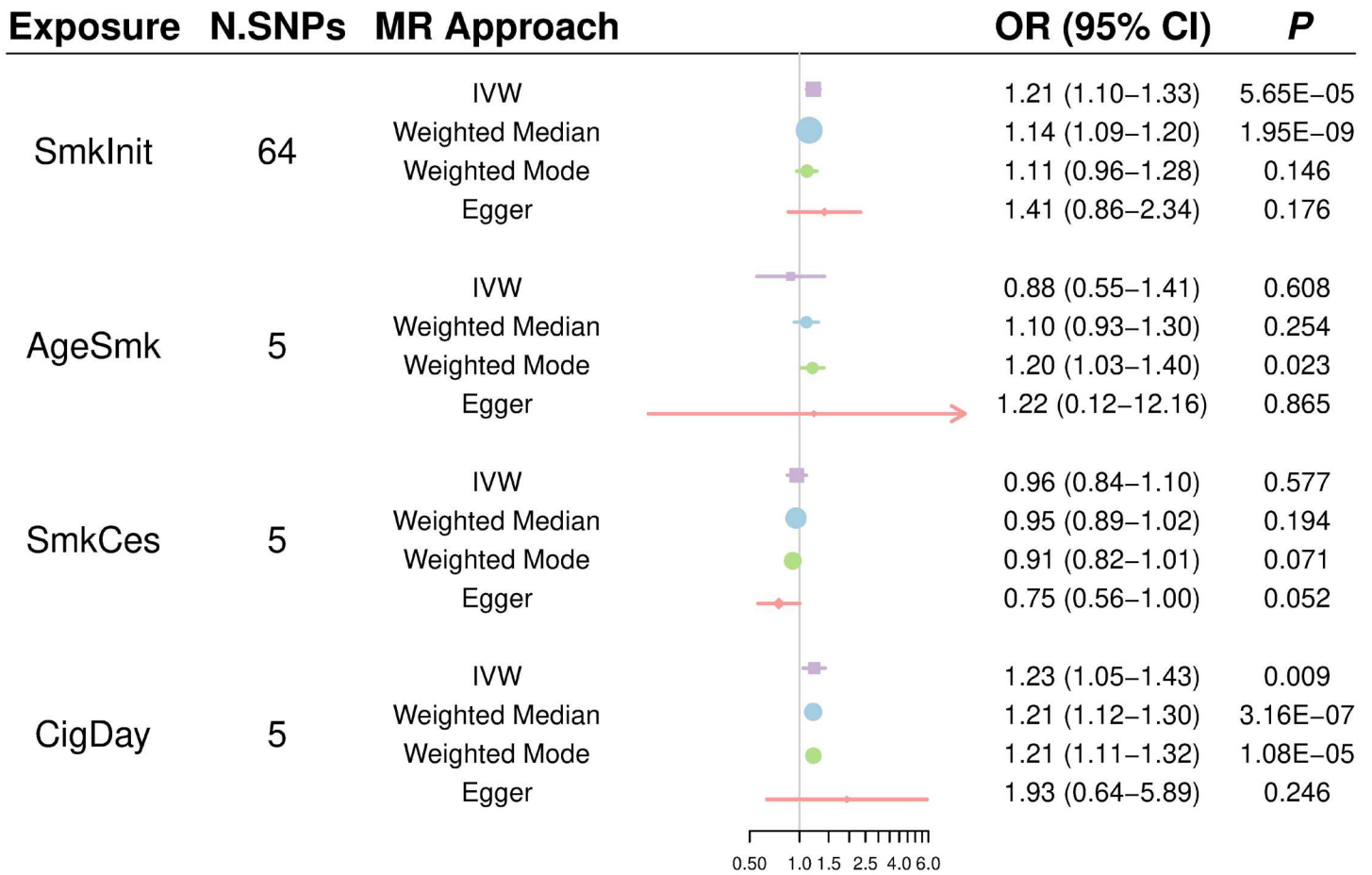


**Figure S3.** Odds ratios and 95% confidence intervals for the effect of smoking behaviors on lung cancer and histological subtypes estimated by univariable MR. SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer; N.SNPs: number of SNPs used in MR, similarly hereinafter. Colors indicate for four approaches used in MR analyses.



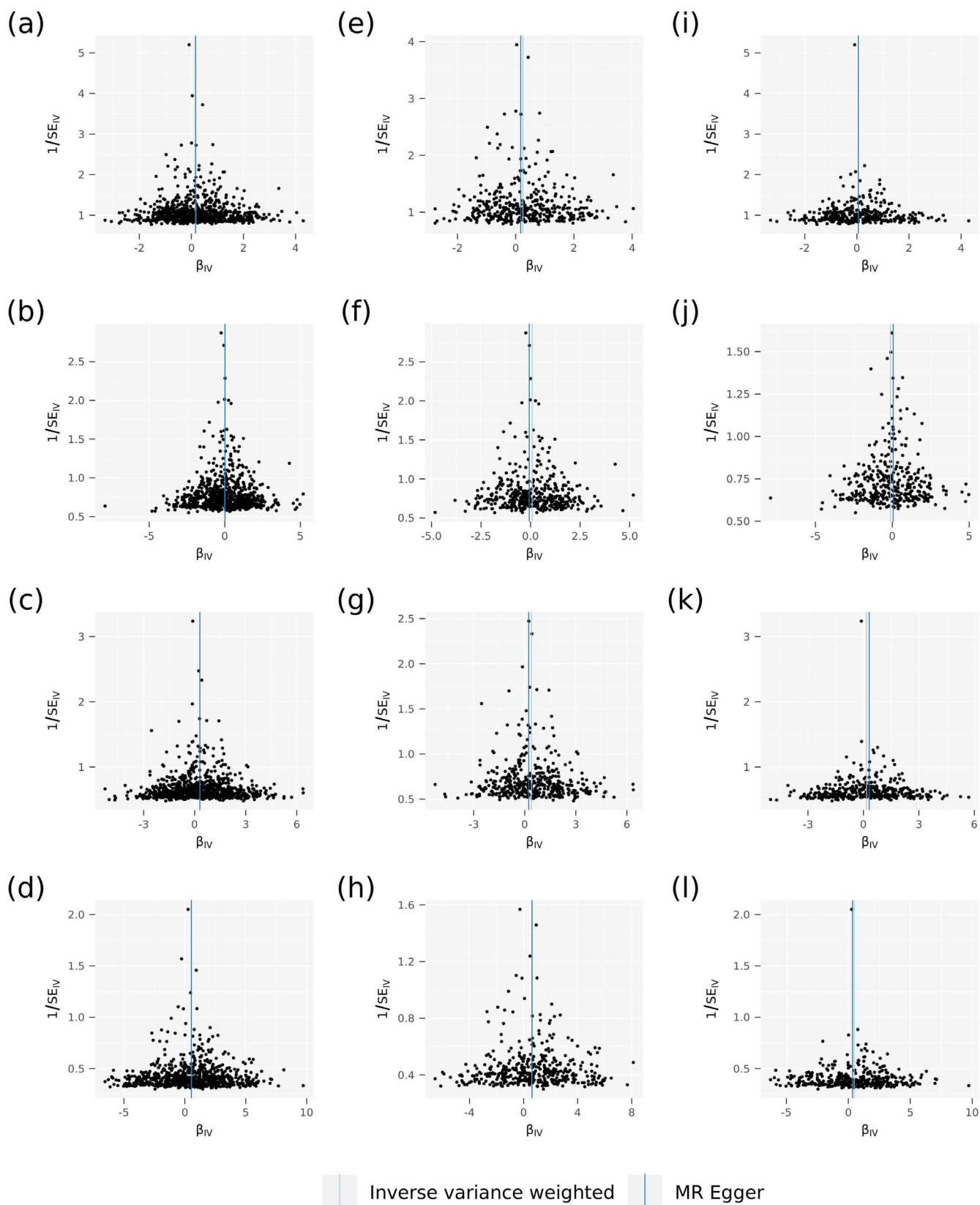
■ MR-IVW ● MR-Weighted Median ● MR-Weighted Mode ◆ MR-Egger

**Figure S4.** Odds ratios and 95% confidence intervals for the effect of BMI on smoking phenotypes estimated by univariable MR using BMI-All SNPs, BMI&Smoking SNPs, and BMI-Only. BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; N.SNPs: number of SNPs used in MR. Colors indicate for four approaches used in MR analyses.

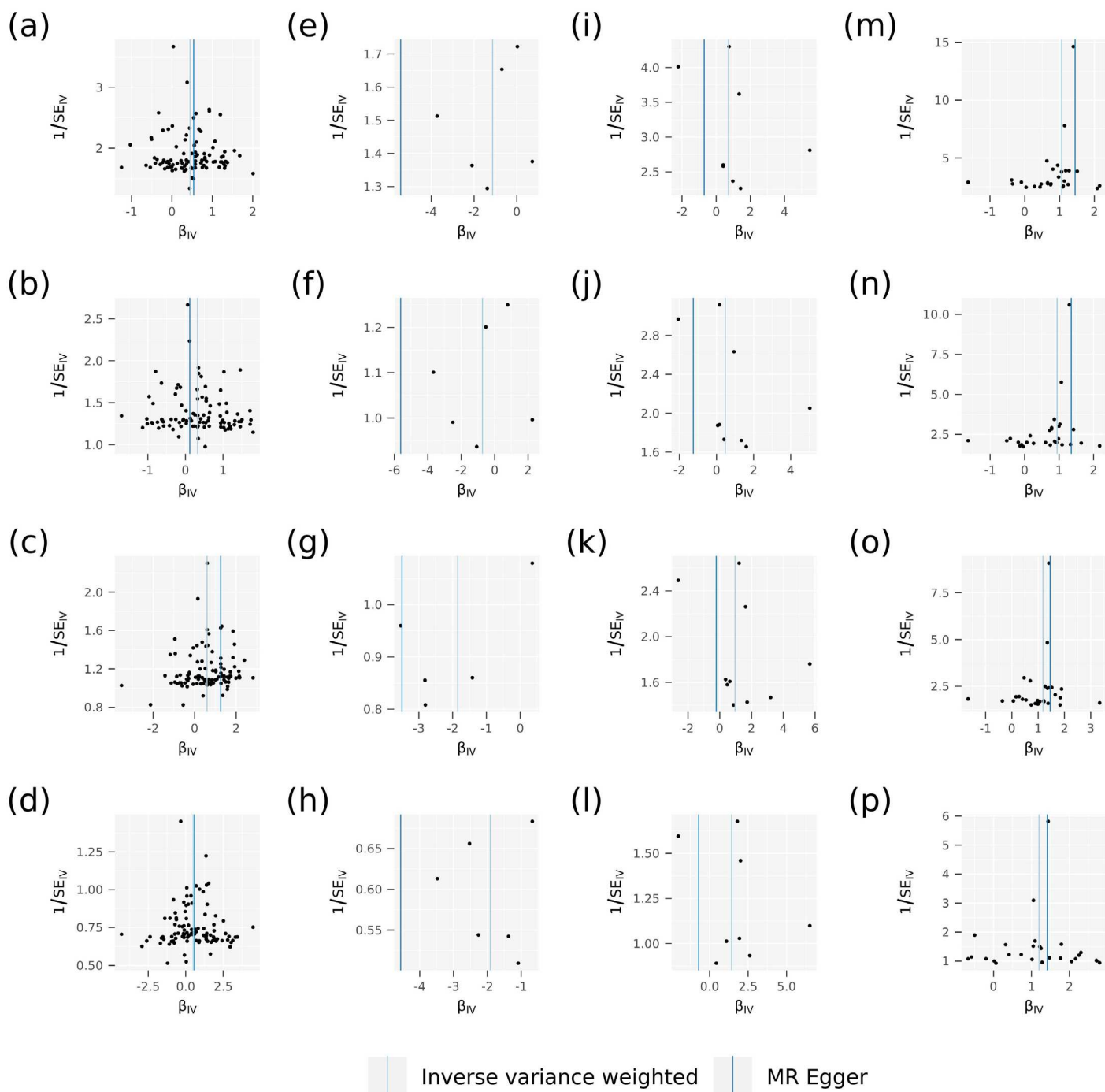


■ MR-IVW ● MR-Weighted Median ● MR-Weighted Mode ◆ MR-Egger

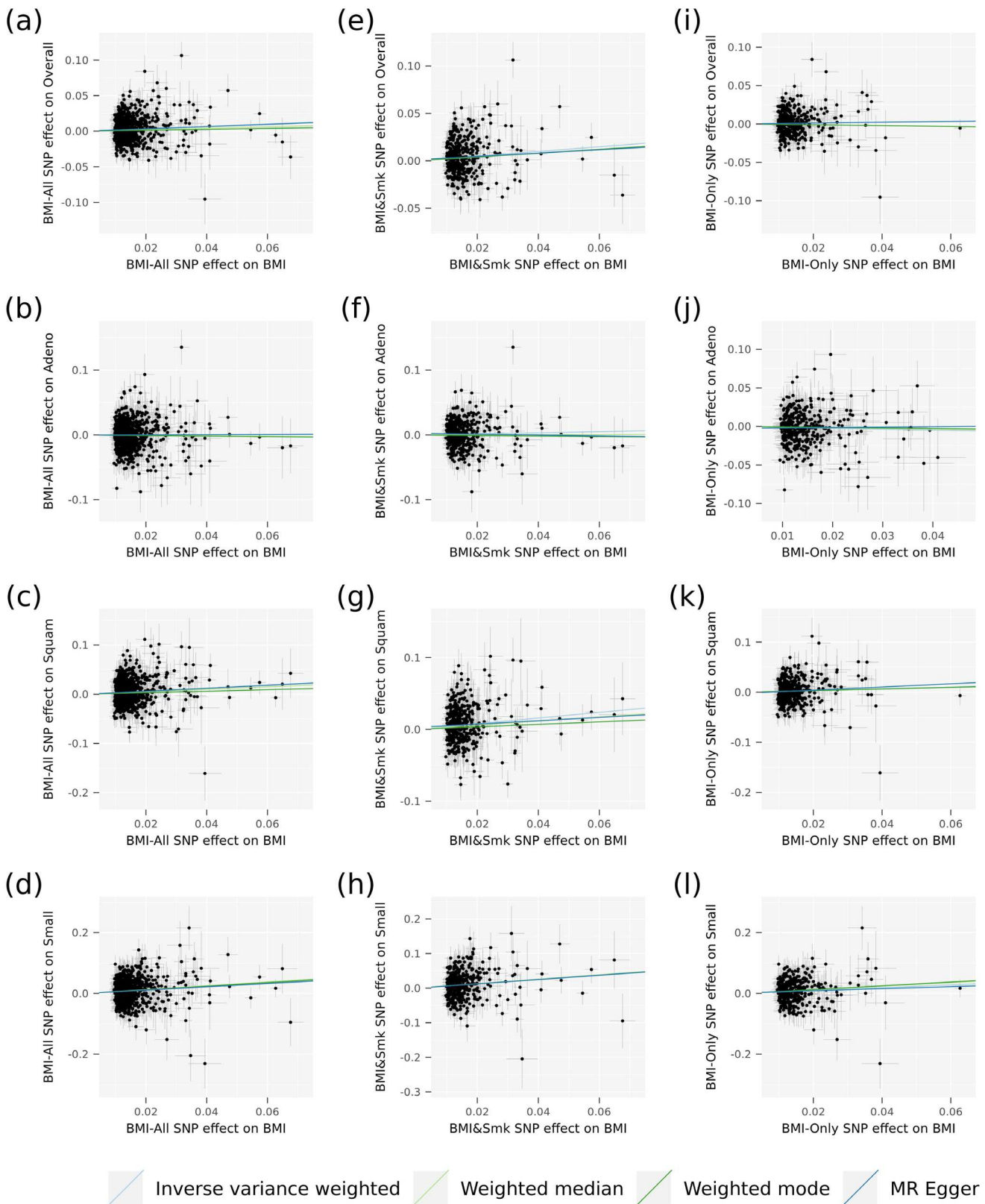
**Figure S5.** Odds ratios and 95% confidence intervals for the effect of smoking behaviors on BMI estimated by univariable MR. SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; N.SNPs: number of SNPs used in MR. Colors indicate for four approaches used in MR analyses.



**Figure S6.** Funnel plots to show symmetrical distribution of individual variant estimates around the point estimate. (a-d) Funnel plots for BMI-All SNPs; (e-h) Funnel plots for BMI&Smoking SNPs; and (i-l) Funnel plots for BMI-Only SNPs. The x-axis represents the MR estimate of individual variants; the y-axis represents the inverse of their standard error. Effects were estimated for BMI on overall lung cancer, lung adenocarcinoma, lung squamous cell carcinoma, and small cell lung cancer, respectively. BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI. Colors indicate for approaches used in univariable MR analyses.

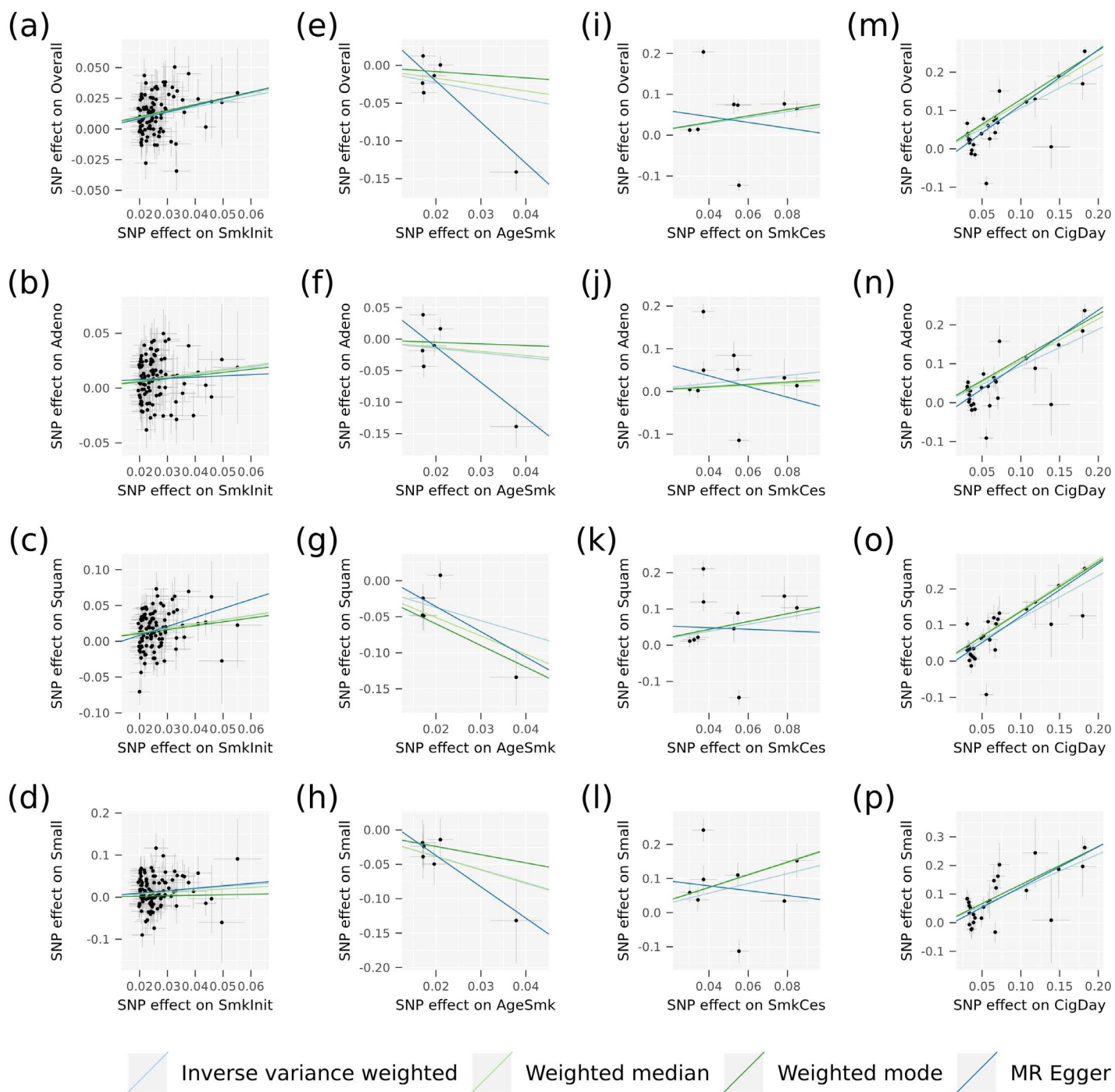


**Figure S7.** Funnel plots to show symmetrical distribution of individual variant estimates around the point estimate. (a-d) Funnel plots for SmkInit; (e-h) Funnel plots for AgeSmk; (i-l) Funnel plots for SmkCes; and (m-p) Funnel plots for CigDay. The x-axis represents the MR estimate of individual variants; the y-axis represents the inverse of their standard error. Effects were estimated for smoking behaviors on overall lung cancer, lung adenocarcinoma, lung squamous cell carcinoma, and small cell lung cancer, respectively. SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day. Colors indicate for approaches used in univariable MR analyses.



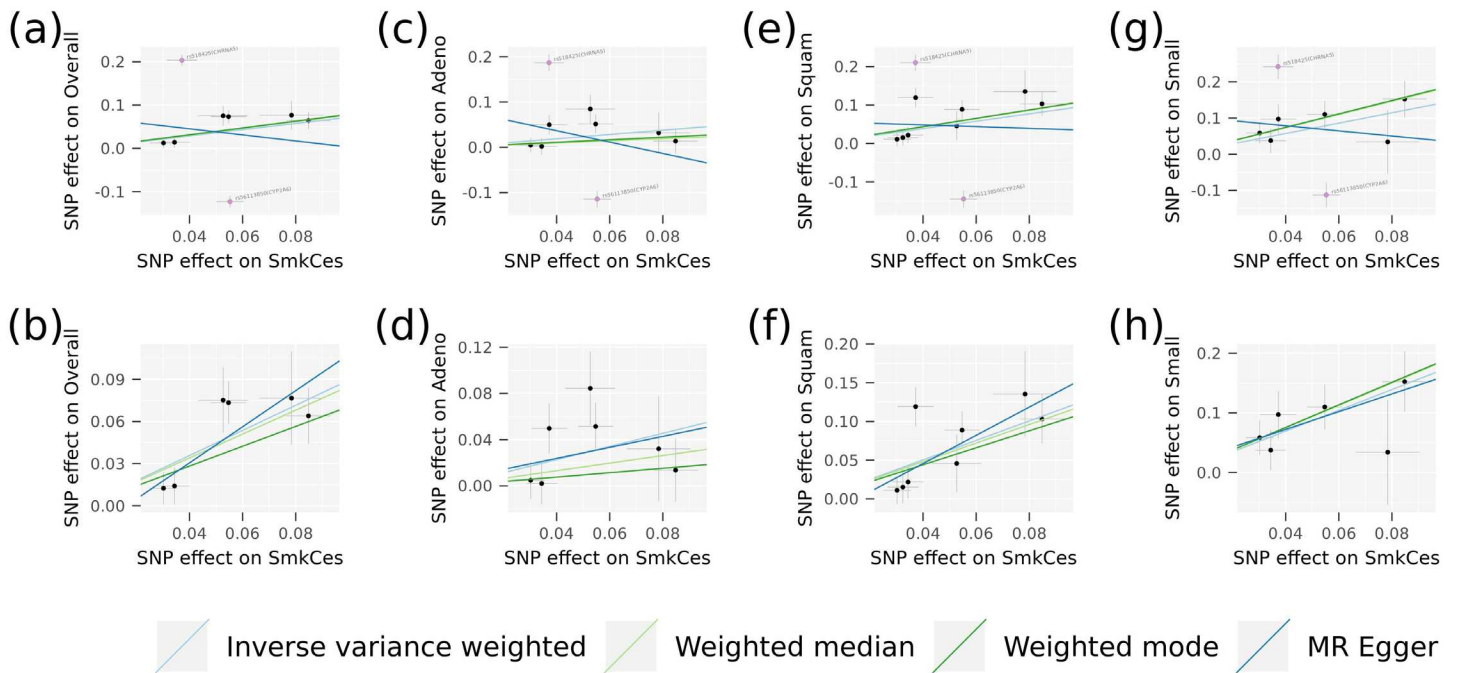
**Figure S8.** Scatter plots for effect sizes of SNPs for BMI and those for lung cancer and histological subtypes. (a-d) Scatter plots for BMI-All SNPs; (e-h) Scatter plots for BMI&Smoking SNPs and (i-l) Scatter plots for BMI-Only SNPs. The x-axis represents the effect size of SNPs on BMI; the y-axis represents the effect size of SNPs on lung cancer and histological subtypes. BMI-All SNPs: All genetic instruments associated with BMI; BMI&Smoking SNPs: the genetic instruments associated with both BMI and any one of the four smoking phenotypes; BMI-Only SNPs: the genetic instruments only associated with BMI; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer. Colors of fitted line indicate for four approaches used in univariable MR analyses.





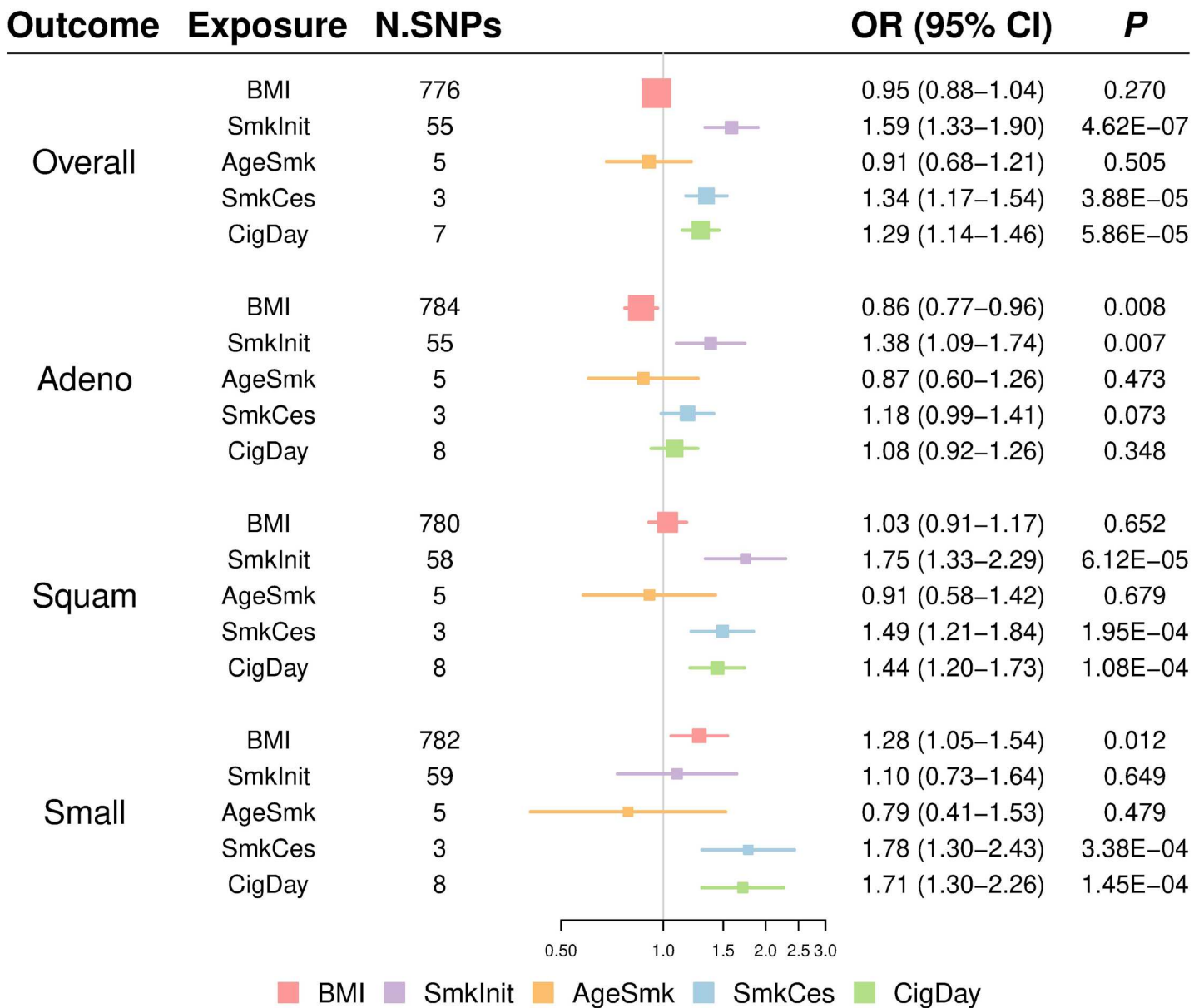
**Figure S9.** Scatter plots for effect sizes of SNPs for smoking behaviors and those for lung cancer and histological subtypes.

(a-d) Scatter plots for SmkInit; (e-h) Scatter plots for AgeSmk; (i-l) Scatter plots for SmkCes; and (m-p) Scatter plots for CigDay. The x-axis represents the effect size of SNPs on smoking behaviors; the y-axis represents the effect size of SNPs on lung cancer and histological subtypes. SmkInit, smoking status, Ever/Never; AgeSmk, age of smoking initiation; SmkCes, smoking cessation, Current/Former; CigDay, cigarettes per day; Overall: overall lung cancer; Adeno: lung adenocarcinoma; Squam: lung squamous cell carcinoma; Small: small cell lung cancer. Colors of fitted line indicate for four approaches used in univariable MR analyses.



**Figure S10.** Scatter plots for effect sizes of SNPs for smoking cessation and those for lung cancer and histological subtypes with and without outliers.

Upper: scatter plots with outliers; Bottom: scatter plots without outliers. The x-axis represents the effect size of SNPs on smoking cessation; the y-axis represents the effect size of SNPs on overall lung cancer, lung adenocarcinoma, lung squamous cell carcinoma, and small cell lung carcinoma, respectively. Colors of fitted line indicate for four approaches used in univariable MR analyses. The outliers are marked as purple points.



**Figure S11.** Causal relationships of BMI and smoking phenotypes on lung cancer estimated by multivariable MR Egger. Colors indicate for five exposures: BMI, SmkInit, AgeSmk, SmkCes, and CigDay.