

**S2 Table- Risk increase on lung cancer phenotypes for each standard deviation increase in the phenotype provided by weighted median MR approach.** HDL: High-density lipoprotein, LDL: Low-density lipoprotein. Chol: Cholesterol. OR: Odds ratio. LCI: Lower confidence interval. UCI: Upper confidence interval. P: P value.

		Lung Overall					Adenocarcinoma					Squamous cell					Small cell					Overall never smokers					Overall ever smokers				
Risk factor	N SNPs	OR	LCI	UCI	P	P Het	OR	LCI	UCI	P	P Het	OR	LCI	UCI	P	P Het	OR	LCI	UCI	P	P Het	OR	LCI	UCI	P	P Het	OR	LCI	UCI	P	P Het
Body mass index	72	0.97	0.81	1.16	0.77	7.5E-05	0.88	0.70	1.11	0.29	0.07	1.15	0.85	1.56	0.36	0.01	1.26	0.77	2.05	0.36	0.09	0.68	0.40	1.14	0.14	0.16	1.07	0.86	1.33	0.55	0.01
Waist-hip ratio	31	1.00	0.76	1.31	0.97	0.05	0.88	0.61	1.29	0.54	0.16	1.26	0.80	2.00	0.32	0.02	1.01	0.51	2.00	0.98	0.32	0.65	0.30	1.40	0.28	0.55	0.89	0.63	1.25	0.50	0.16
HDL	62	1.02	0.93	1.12	0.64	0.01	1.00	0.87	1.14	0.99	0.43	1.05	0.90	1.21	0.56	4.7E-03	1.05	0.83	1.32	0.71	0.02	1.12	0.84	1.50	0.45	0.01	1.04	0.92	1.18	0.54	0.02
HDL rare variants	8	1.07	0.93	1.24	0.34	0.51	1.06	0.87	1.30	0.58	0.69	1.41	1.11	1.79	0.01	0.21	0.75	0.52	1.08	0.12	0.70	0.91	0.58	1.41	0.67	0.99	0.90	0.75	1.09	0.30	0.82
LDL	48	0.91	0.81	1.02	0.10	0.11	0.88	0.76	1.02	0.10	0.14	0.77	0.63	0.94	0.01	0.06	0.87	0.65	1.17	0.37	4.0E-03	0.90	0.67	1.20	0.48	0.04	0.89	0.77	1.02	0.10	0.34
Total Chol	65	0.90	0.81	1.01	0.09	0.01	0.99	0.86	1.14	0.88	0.03	0.80	0.66	0.97	0.02	0.03	0.86	0.65	1.14	0.31	0.01	0.88	0.66	1.18	0.40	0.44	0.88	0.76	1.02	0.08	0.19
Non-HDL rare variants	6	1.10	0.92	1.31	0.31	0.36	1.04	0.82	1.32	0.78	0.58	1.15	0.86	1.53	0.36	0.62	1.11	0.72	1.71	0.64	0.23	1.38	0.80	2.38	0.25	0.78	1.02	0.80	1.29	0.89	0.11
Triglycerides	38	1.01	0.90	1.14	0.86	0.01	1.05	0.89	1.23	0.60	0.46	1.14	0.94	1.37	0.18	8.9E-04	0.81	0.59	1.10	0.18	0.02	0.98	0.70	1.36	0.90	0.22	0.93	0.80	1.09	0.37	4.6E-03
Triglycerides rare variants	7	1.12	0.84	1.49	0.45	0.05	0.85	0.58	1.26	0.43	0.42	0.84	0.52	1.34	0.47	0.08	1.44	0.71	2.90	0.31	0.42	1.41	0.63	3.13	0.41	0.36	1.06	0.70	1.60	0.79	9.0E-04
Fasting glucose	24	1.16	0.95	1.42	0.14	0.02	1.06	0.82	1.38	0.66	0.50	1.39	1.04	1.86	0.02	0.67	1.24	0.74	2.06	0.42	5.7E-05	1.14	0.65	2.02	0.66	0.83	1.08	0.85	1.36	0.55	0.39
Fasting insulin	11	1.69	1.16	2.46	0.01	0.24	1.61	1.02	2.55	0.04	0.65	1.65	0.89	3.07	0.11	0.11	2.91	1.15	7.37	0.02	0.25	0.96	0.35	2.60	0.94	0.92	2.26	1.46	3.50	2.9E-04	0.25
Glucose post-2h	6	0.77	0.54	1.09	0.14	0.01	1.27	0.83	1.94	0.27	0.16	0.91	0.58	1.44	0.70	0.64	0.82	0.38	1.77	0.62	0.05	1.98	0.87	4.51	0.11	0.54	1.07	0.75	1.52	0.72	0.31