

Table S1 MR-Egger regression analyses on detecting directional pleiotropy of Mendelian randomization.

Outcome	Exposure	Egger intercept	SE	P value
Lung adenocarcinoma	C-reactive protein	0.0013	0.0031	0.6907
Lung cancer	C-reactive protein	0.0005	0.0023	0.8411
Squamous cell lung cancer	C-reactive protein	-0.0018	0.0035	0.6039
Lung adenocarcinoma	East Asian-specific CRP variants	0.0010	0.0509	0.9850
Lung cancer	East Asian-specific CRP variants	-0.0384	0.0247	0.1945
Squamous cell lung cancer	East Asian-specific CRP variants	-0.0054	0.0352	0.8860
Lung adenocarcinoma	Hispanic/Latin American-specific CRP variants	0.0107	0.0179	0.5618
Lung cancer	Hispanic/Latin American-specific CRP variants	-0.0013	0.0144	0.9278
Squamous cell lung cancer	Hispanic/Latin American-specific CRP variants	-0.0037	0.0237	0.8774
Lung adenocarcinoma	European-specific CRP variants	0.0017	0.0037	0.6500
Lung cancer	European-specific CRP variants	0.0010	0.0027	0.7013
Squamous cell lung cancer	European-specific CRP variants	-0.0020	0.0042	0.6317
Lung adenocarcinoma	African American/Afro-Caribbean-specific CRP variants	-0.1058	0.0686	0.2632
Lung cancer	African American/Afro-Caribbean-specific CRP variants	-0.0878	0.0448	0.1891
Squamous cell lung cancer	African American/Afro-Caribbean-specific CRP variants	0.0553	0.0650	0.4844
Lung adenocarcinoma	South Asian-specific CRP variants	-0.0107	0.0238	0.6722
Lung cancer	South Asian-specific CRP variants	-0.0236	0.0152	0.1829
Squamous cell lung cancer	South Asian-specific CRP variants	-0.0068	0.0234	0.7842
C-reactive protein levels	Lung adenocarcinoma	-0.0347	0.0120	0.0199
C-reactive protein levels	Lung cancer	-0.0274	0.0086	0.0052
C-reactive protein levels	Squamous cell lung cancer	-0.0113	0.0099	0.2749
East Asian-specific CRP variants	Lung adenocarcinoma	-	-	-
Hispanic/Latin American-specific CRP variants	Lung adenocarcinoma	-	-	-
European-specific CRP variants	Lung adenocarcinoma	-	-	-
African American/Afro-Caribbean-specific CRP variants	Lung adenocarcinoma	-	-	-
South Asian-specific CRP variants	Lung adenocarcinoma	-	-	-
East Asian-specific CRP variants	Lung cancer	-0.0605	0.0221	0.2233
Hispanic/Latin American-specific CRP variants	Lung cancer	-0.0380	0.0273	0.2589
European-specific CRP variants	Lung cancer	-0.0256	0.0181	0.2511
African American/Afro-Caribbean-specific CRP variants	Lung cancer	-0.1581	0.0993	0.2523
South Asian-specific CRP variants	Lung cancer	0.0425	0.0578	0.5963
East Asian-specific CRP variants	Squamous cell lung cancer	-	-	-
Hispanic/Latin American-specific CRP variants	Squamous cell lung cancer	-0.0389	0.0335	0.3654
European-specific CRP variants	Squamous cell lung cancer	-0.0094	0.0231	0.7238
African American/Afro-Caribbean-specific CRP variants	Squamous cell lung cancer	-0.0501	0.0590	0.5520
South Asian-specific CRP variants	Squamous cell lung cancer	-	-	-

Table S2 Heterogeneity test of bidirectional Mendelian randomization

Outcome	Exposure	Method	Q	Q df*	Q P value	I ²
Lung adenocarcinoma	Overall CRP variants	MR Egger	226.679	202	1.12E-01	10.89%
Lung adenocarcinoma	Overall CRP variants	Inverse variance weighted	226.857	203	1.20E-01	10.52%
Lung cancer	Overall CRP variants	MR Egger	282.244	202	1.64E-04	28.43%
Lung cancer	Overall CRP variants	Inverse variance weighted	282.300	203	1.94E-04	28.09%
Squamous cell lung cancer	Overall CRP variants	MR Egger	285.919	202	9.26E-05	29.35%
Squamous cell lung cancer	Overall CRP variants	Inverse variance weighted	286.301	203	1.05E-04	29.10%
Lung adenocarcinoma	East Asian-specific CRP variants	MR Egger	8.466	4	7.59E-02	52.75%
Lung adenocarcinoma	East Asian-specific CRP variants	Inverse variance weighted	8.467	5	1.32E-01	40.95%
Lung cancer	East Asian-specific CRP variants	MR Egger	4.539	4	3.38E-01	11.88%
Lung cancer	East Asian-specific CRP variants	Inverse variance weighted	7.289	5	2.00E-01	31.41%
Squamous cell lung cancer	East Asian-specific CRP variants	MR Egger	1.364	4	8.50E-01	0.00%
Squamous cell lung cancer	East Asian-specific CRP variants	Inverse variance weighted	1.388	5	9.26E-01	0.00%
Lung adenocarcinoma	Hispanic/Latin American-specific CRP variants	MR Egger	7.854	11	7.26E-01	0.00%
Lung adenocarcinoma	Hispanic/Latin American-specific CRP variants	Inverse variance weighted	8.212	12	7.68E-01	0.00%
Lung cancer	Hispanic/Latin American-specific CRP variants	MR Egger	17.355	11	9.78E-02	36.62%
Lung cancer	Hispanic/Latin American-specific CRP variants	Inverse variance weighted	17.369	12	1.36E-01	30.91%
Squamous cell lung cancer	Hispanic/Latin American-specific CRP variants	MR Egger	20.534	11	3.85E-02	46.43%
Squamous cell lung cancer	Hispanic/Latin American-specific CRP variants	Inverse variance weighted	20.580	12	5.69E-02	41.69%
Lung adenocarcinoma	European-specific CRP variants	MR Egger	202.690	172	5.47E-02	15.14%
Lung adenocarcinoma	European-specific CRP variants	Inverse variance weighted	202.934	173	5.94E-02	14.75%
Lung cancer	European-specific CRP variants	MR Egger	247.330	172	1.47E-04	30.46%
Lung cancer	European-specific CRP variants	Inverse variance weighted	247.542	173	1.73E-04	30.11%
Squamous cell lung cancer	European-specific CRP variants	MR Egger	259.036	172	1.98E-05	33.60%
Squamous cell lung cancer	European-specific CRP variants	Inverse variance weighted	259.383	173	2.31E-05	33.30%
Lung adenocarcinoma	African American/Afro-Caribbean-specific CRP variants	MR Egger	0.440	2	8.03E-01	0.00%
Lung adenocarcinoma	African American/Afro-Caribbean-specific CRP variants	Inverse variance weighted	2.816	3	4.21E-01	0.00%
Lung cancer	African American/Afro-Caribbean-specific CRP variants	MR Egger	0.396	2	8.20E-01	0.00%
Lung cancer	African American/Afro-Caribbean-specific CRP variants	Inverse variance weighted	4.237	3	2.37E-01	29.19%
Squamous cell lung cancer	African American/Afro-Caribbean-specific CRP variants	MR Egger	0.765	2	6.82E-01	0.00%
Squamous cell lung cancer	African American/Afro-Caribbean-specific CRP variants	Inverse variance weighted	1.489	3	6.85E-01	0.00%
Lung adenocarcinoma	South Asian-specific CRP variants	MR Egger	2.362	5	7.97E-01	0.00%
Lung adenocarcinoma	South Asian-specific CRP variants	Inverse variance weighted	2.564	6	8.61E-01	0.00%
Lung cancer	South Asian-specific CRP variants	MR Egger	2.493	5	7.78E-01	0.00%
Lung cancer	South Asian-specific CRP variants	Inverse variance weighted	4.881	6	5.59E-01	0.00%
Squamous cell lung cancer	South Asian-specific CRP variants	MR Egger	2.961	5	7.06E-01	0.00%
Squamous cell lung cancer	South Asian-specific CRP variants	Inverse variance weighted	3.044	6	8.03E-01	0.00%
Overall CRP variants levels	Lung adenocarcinoma	MR Egger	14.144	8	7.81E-02	43.44%
Overall CRP variants levels	Lung adenocarcinoma	Inverse variance weighted	29.003	9	6.47E-04	68.97%
Overall CRP variants levels	Lung cancer	MR Egger	59.026	18	2.94E-06	69.51%
Overall CRP variants levels	Lung cancer	Inverse variance weighted	92.240	19	1.33E-11	79.40%
Overall CRP variants levels	Squamous cell lung cancer	MR Egger	82.661	13	3.48E-12	84.27%
Overall CRP variants levels	Squamous cell lung cancer	Inverse variance weighted	90.924	14	2.54E-13	84.60%
East Asian-specific CRP variants	Lung adenocarcinoma	Inverse variance weighted	4.124	1	4.23E-02	75.75%
Hispanic/Latin American-specific CRP variants	Lung adenocarcinoma	Inverse variance weighted	2.133	1	1.44E-01	53.12%
European-specific CRP variants	Lung adenocarcinoma	Inverse variance weighted	11.145	1	8.43E-04	91.03%
African American/Afro-Caribbean-specific CRP variants	Lung adenocarcinoma	Inverse variance weighted	0.086	1	7.69E-01	0.00%
South Asian-specific CRP variants	Lung adenocarcinoma	Inverse variance weighted	1.955	1	1.62E-01	48.84%
East Asian-specific CRP variants	Lung cancer	MR Egger	0.679	1	4.10E-01	0.00%
East Asian-specific CRP variants	Lung cancer	Inverse variance weighted	8.149	2	1.70E-02	75.46%
Hispanic/Latin American-specific CRP variants	Lung cancer	MR Egger	3.413	3	3.32E-01	12.11%
Hispanic/Latin American-specific CRP variants	Lung cancer	Inverse variance weighted	5.609	4	2.30E-01	28.69%
European-specific CRP variants	Lung cancer	MR Egger	39.422	3	1.41E-08	92.39%
European-specific CRP variants	Lung cancer	Inverse variance weighted	65.854	4	1.70E-13	93.93%
African American/Afro-Caribbean-specific CRP variants	Lung cancer	MR Egger	2.419	2	2.98E-01	17.31%
African American/Afro-Caribbean-specific CRP variants	Lung cancer	Inverse variance weighted	5.484	3	1.40E-01	45.30%
South Asian-specific CRP variants	Lung cancer	MR Egger	0.272	1	6.02E-01	0.00%
South Asian-specific CRP variants	Lung cancer	Inverse variance weighted	0.813	2	6.66E-01	0.00%
East Asian-specific CRP variants	Squamous cell lung cancer	Inverse variance weighted	2.708	1	9.99E-02	63.07%
Hispanic/Latin American-specific CRP variants	Squamous cell lung cancer	MR Egger	6.508	2	3.86E-02	69.27%
Hispanic/Latin American-specific CRP variants	Squamous cell lung cancer	Inverse variance weighted	10.896	3	1.23E-02	72.47%
European-specific CRP variants	Squamous cell lung cancer	MR Egger	61.891	2	3.64E-14	96.77%
European-specific CRP variants	Squamous cell lung cancer	Inverse variance weighted	67.002	3	1.87E-14	95.52%
African American/Afro-Caribbean-specific CRP variants	Squamous cell lung cancer	MR Egger	0.709	1	4.00E-01	0.00%
African American/Afro-Caribbean-specific CRP variants	Squamous cell lung cancer	Inverse variance weighted	1.430	2	4.89E-01	0.00%
South Asian-specific CRP variants	Squamous cell lung cancer	Inverse variance weighted	5.638	1	1.76E-02	82.26%

df*, degree of freedom.