

Supplemental Table 4. The negative results of MR study between intake of artificial sweetener added to cereal and cancers.

Type of cancer		GWAS ID	Inverse variance weighted						Heterogeneity		Pleio	
			Odds ratio	CI lower	CI upper	p-value	β	SE	Q-value	p-value	MR Egger-intercept	p-value
Lung cancer	Squamous cell lung cancer	finn-b-C3_NSCLC_SQUAM_EXALLC	1.862	0.055	62.852	0.729	0.622	1.795	8.764	0.890	-0.074	0.211
	Squamous cell lung cancer	finn-b-C3_NSCLC_SQUAM	1.763	0.053	58.828	0.751	0.567	1.789	8.406	0.906	-0.069	0.242
	Squamous cell lung cancer	ieu-a-967	1.006	0.120	8.409	0.995	0.006	1.083	42.529	0.000	-0.025	0.472
	Small cell lung cancer	finn-b-C3_SCLC_EXALLC	423.351	2.378	75369.997	0.022	6.048	2.644	16.756	0.334	0.050	0.569
	Small cell lung cancer	finn-b-C3_SCLC	396.090	2.141	73263.234	0.025	5.982	2.663	17.097	0.313	0.048	0.582
	Non-small cell lung cancer	finn-b-C3_LUNG_NONSMALL	3.181	0.592	17.090	0.177	1.157	0.858	6.839	0.962	0.015	0.591
	Non-small cell lung cancer	finn-b-C3_LUNG_NONSMALL_EXALLC	3.684	0.676	20.065	0.132	1.304	0.865	7.055	0.956	0.016	0.566

Lung cancer	Lung cancer and mesothelioma	ukb-d-LUNG_CANCER_ME SOT	1.004	0.995	1.014	0.373	0.004	0.005	18.027	0.322	0.000	0.339
	Lung cancer	ieu-b-4954	1.004	0.990	1.019	0.573	0.004	0.007	32.272	0.006	0.000	0.445
	Lung cancer	ieu-a-966	2.137	0.754	6.054	0.153	0.759	0.531	24.294	0.083	-0.002	0.895
	Lung cancer	ieu-b-4955	1.004	0.990	1.019	0.577	0.004	0.007	32.322	0.006	0.000	0.437
	lung adenocarcinoma	finn-b-C3_NSCLC_ADENO_EXALLC	5.999	0.352	102.198	0.216	1.792	1.447	13.552	0.560	0.064	0.180
	Lung adenocarcinoma	ieu-a-965	2.203	0.582	8.347	0.245	0.790	0.680	9.770	0.878	-0.024	0.278
	lung adenocarcinoma	finn-b-C3_NSCLC_ADENO	5.033	0.298	84.968	0.262	1.616	1.442	13.579	0.558	0.063	0.186
	Malignant neoplasm of bronchus and lung	ukb-d-C3_BRONCHUS_LU NG	1.004	0.995	1.013	0.368	0.004	0.005	18.253	0.309	0.000	0.135
	Lung cancer	ieu-a-987	1.478	1.001	2.181	0.049	0.390	0.199	14.310	0.999	0.002	0.801
	Lung adenocarcinoma	ieu-a-984	1.217	0.715	2.069	0.469	0.196	0.271	26.474	0.818	-0.004	0.647
	Squamous cell lung cancer	ieu-a-989	2.060	1.089	3.895	0.026	0.723	0.325	34.177	0.459	-0.019	0.072

Colorectal cancer	Colorectal cancer	ieu-b-4965	0.999	0.983	1.015	0.888	-0.001	0.008	20.444	0.156	0.000	0.683
	Colorectal cancer	finn-b-C3_COLORECTAL_EXALLC	1.040	0.292	3.709	0.951	0.040	0.649	9.319	0.860	0.007	0.750
	Colon adenocarcinoma	finn-b-C3_COLON_ADENOXALLC	0.698	0.112	4.357	0.701	-0.359	0.934	12.539	0.638	0.017	0.580
	Malignant neoplasm of colon	finn-b-C3_COLON_EXALLC	0.462	0.092	2.316	0.348	-0.771	0.822	12.723	0.624	0.023	0.397
Malignant neoplasm of stomach (all cancers excluded)	Malignant neoplasm of stomach (all cancers excluded)	finn-b-C3_STOMACH_EXALLC	0.539	0.037	7.882	0.652	-0.618	1.369	14.420	0.494	0.040	0.364
Breast cancer	Breast cancer	ebi-a-GCST004988	0.839	0.626	1.125	0.241	-0.175	0.149	12.575	0.764	0.002	0.751
	Breast cancer	ieu-a-1126	0.831	0.615	1.124	0.229	-0.185	0.154	12.541	0.706	0.001	0.794
	Breast cancer	ieu-a-1131	0.584	0.241	1.416	0.234	-0.538	0.452	15.052	0.521	0.007	0.654
	Breast cancer	ieu-a-1168	0.765	0.384	1.526	0.447	-0.268	0.352	28.533	0.039	0.003	0.797
	Breast cancer	ieu-a-1130	0.768	0.425	1.386	0.380	-0.264	0.301	21.632	0.155	-0.007	0.478

Breast cancer	Breast cancer	ieu-a-1129	0.946	0.598	1.496	0.812	-0.056	0.234	20.367	0.204	0.006	0.422
	Breast cancer	ieu-a-1165	2.087	0.421	10.348	0.368	0.736	0.817	19.015	0.213	0.005	0.848
	Breast cancer	ukb-a-55	0.982	0.965	1.000	0.046	-0.018	0.009	15.259	0.506	0.000	0.494
	ER- Breast cancer	ieu-a-1128	0.822	0.421	1.605	0.566	-0.196	0.341	24.525	0.079	-0.007	0.560
	ER- Breast cancer	ieu-a-1137	0.191	0.045	0.807	0.024	-1.654	0.734	12.630	0.700	0.017	0.484
	ER- Breast cancer	ieu-a-1166	0.562	0.118	2.684	0.470	-0.576	0.798	37.202	0.003	-0.017	0.509
	ER- Breast cancer	ieu-a-1136	0.726	0.239	2.207	0.573	-0.320	0.567	18.632	0.288	-0.023	0.192
	ER- Breast cancer	ieu-a-1135	1.290	0.589	2.825	0.525	0.255	0.400	19.060	0.266	0.000	0.978
	ER- Breast cancer	ieu-a-1163	1.777	0.107	29.503	0.688	0.575	1.433	17.485	0.291	-0.046	0.321
	ER+ Breast cancer	ieu-a-1127	0.988	0.690	1.414	0.946	-0.012	0.183	11.406	0.784	-0.001	0.920
	ER+ Breast cancer	ieu-a-1134	0.630	0.103	3.861	0.618	-0.461	0.925	19.388	0.249	-0.019	0.525

Breast cancer	ER+ Breast cancer	ieu-a-1167	1.028	0.503	2.104	0.939	0.028	0.365	20.436	0.253	0.011	0.337
	ER+ Breast cancer	ieu-a-1133	0.987	0.516	1.888	0.969	-0.013	0.331	18.475	0.297	-0.009	0.382
	ER+ Breast cancer	ieu-a-1132	1.022	0.621	1.681	0.932	0.022	0.254	19.047	0.266	0.007	0.440
	ER+ Breast cancer	ieu-a-1164	4.339	0.373	50.428	0.241	1.468	1.251	17.988	0.263	0.050	0.211
Ovarian cancer	Serous ovarian cancer: low malignant potential	ieu-a-1230	0.403	0.079	2.051	0.273	-0.909	0.830	13.023	0.671	0.007	0.796
	Serous ovarian cancer: low grade and low malignant potential	ieu-a-1229	0.458	0.096	2.190	0.328	-0.781	0.798	21.716	0.153	0.025	0.352
	Ovarian cancer	ieu-b-4963	1.011	0.998	1.024	0.102	0.011	0.007	8.614	0.855	0.000	0.715
	Ovarian cancer	ieu-a-1120	1.044	0.563	1.936	0.892	0.043	0.315	12.358	0.719	0.003	0.753
	Mucinous ovarian cancer: invasive and low malignant potential	ieu-a-1231	0.777	0.191	3.165	0.725	-0.252	0.716	7.877	0.952	0.000	0.991
	Low malignant potential ovarian cancer	ieu-a-1233	0.562	0.150	2.109	0.393	-0.577	0.675	11.791	0.758	-0.008	0.732
	Low malignant potential mucinous ovarian cancer	ieu-a-1232	1.099	0.139	8.673	0.928	0.095	1.054	10.708	0.827	-0.026	0.455

Ovarian cancer	Low grade serous ovarian cancer	ieu-a-1122	0.912	0.048	17.200	0.951	-0.092	1.498	25.762	0.057	0.064	0.185
	Invasive mucinous ovarian cancer	ieu-a-1123	0.625	0.098	3.989	0.619	-0.470	0.946	10.052	0.864	0.017	0.593
	High grade serous ovarian cancer	ieu-a-1121	0.879	0.411	1.878	0.739	-0.129	0.387	17.898	0.330	-0.007	0.605
	High grade and low grade serous ovarian cancer	ieu-a-1228	0.852	0.383	1.892	0.694	-0.160	0.407	21.240	0.169	-0.002	0.884
	Endometrioid ovarian cancer	ieu-a-1125	1.315	0.250	6.926	0.746	0.274	0.848	25.994	0.054	0.011	0.705
	Clear cell ovarian cancer	ieu-a-1124	1.198	0.185	7.758	0.850	0.180	0.953	14.088	0.592	-0.002	0.941
	Oral and oropharyngeal cancer	ieu-b-4962	0.999	0.993	1.005	0.778	-0.001	0.003	7.249	0.841	0.000	0.875
	Oral cavity and pharyngeal cancer	ieu-b-89	0.385	0.029	5.155	0.471	-0.956	1.324	13.434	0.338	-0.014	0.747
	Oral cavity and pharyngeal cancer	ieu-b-90	0.579	0.042	8.028	0.683	-0.547	1.342	13.035	0.366	-0.009	0.841
	Oral cavity and pharyngeal cancer	ieu-b-91	21.339	0.078	5863.666	0.285	3.061	2.865	15.795	0.201	0.074	0.443
	Oral cavity cancer	ieu-b-93	0.207	0.008	5.559	0.349	-1.573	1.678	13.008	0.368	-0.040	0.475

Ovarian cancer	Oral cavity cancer	ieu-b-94	0.516	0.023	11.487	0.676	-0.662	1.583	11.607	0.478	-0.020	0.698
	Oral cavity cancer	ieu-b-95	37.370	0.081	17219.940	0.247	3.621	3.129	12.855	0.380	0.091	0.392
	Oropharyngeal cancer	ieu-b-96	0.453	0.016	13.233	0.646	-0.792	1.722	12.051	0.442	-0.020	0.727
	Oropharyngeal cancer	ieu-b-97	1.823	0.067	49.810	0.722	0.600	1.688	8.828	0.718	0.038	0.498
	Oropharyngeal cancer	ieu-b-98	6.403	0.000	126014.127	0.713	1.857	5.045	22.805	0.029	0.108	0.521
Kidney cancer	"Malignant neoplasm of kidney, except renal pelvis" (all cancers excluded)	finn-b-C3_KIDNEY_NOTRE NALPELVIS_EXALLC	4.412	0.496	39.230	0.183	1.484	1.115	10.999	0.753	-0.056	0.130
	Malignant neoplasm of kidney, except renal pelvis	finn-b-C3_KIDNEY_NOTRE NALPELVIS	3.799	0.433	33.295	0.228	1.335	1.108	10.783	0.768	-0.058	0.119
	Benign neoplasm: Kidney	finn-b-CD2_BENIGN_KIDNEY	0.378	0.007	19.822	0.630	-0.972	2.020	19.604	0.188	-0.075	0.249
	Benign neoplasm: Kidney (all cancers excluded)	finn-b-CD2_BENIGN_KIDNEY_EXALLC	0.455	0.009	22.258	0.691	-0.788	1.985	18.972	0.215	-0.071	0.267
Head and neck cancer	Head and neck cancer	ieu-b-4912	0.998	0.991	1.005	0.626	-0.002	0.004	6.751	0.915	0.000	0.602

Prostate cancer	Prostate cancer	ieu-b-4809	1.000	0.960	1.042	0.998	0.000	0.021	18.371	0.244	-0.001	0.280
	Prostate cancer	ieu-b-85	0.988	0.635	1.537	0.957	-0.012	0.226	16.193	0.369	0.003	0.653
	Prostate cancer	ukb-d-C3_PROSTATE	1.003	0.986	1.021	0.709	0.003	0.009	22.168	0.138	0.000	0.521
	Prostate cancer	finn-b-C3_PROSTATE_EXALLC	0.882	0.314	2.480	0.812	-0.126	0.527	13.662	0.551	-0.029	0.090
Oesophageal cancer	Oesophageal cancer	ieu-b-4960	1.002	0.996	1.008	0.557	0.002	0.003	7.069	0.793	0.000	0.620
Endometrial cancer	Endometrial cancer	ebi-a-GCST006464	1.199	0.533	2.700	0.661	0.182	0.414	19.251	0.203	-0.006	0.671
	Endometrial cancer (endometrioid histology)	ebi-a-GCST006465	1.366	0.478	3.899	0.561	0.312	0.535	22.984	0.084	-0.011	0.536
	Endometrial cancer (Non-endometrioid histology)	ebi-a-GCST006466	0.470	0.026	8.593	0.610	-0.755	1.483	23.306	0.038	-0.031	0.536