

Table S1: Meta-analysis of *GSTP1*, *CYP1A1*, *hOGG1*, *XRCC1* and *p53* polymorphisms and the four digestive cancers risk

Stratified analysis	Subgroup analysis	No. of studies	OR (95% CI)	Heterogeneity test			Publication bias
				Q	P	I ² (%)	<i>p</i>
<i>GSTP1</i> total population	Overall cancer	12	1.075(0.938-1.231)	20.912	0.075	37.833	0.956*
	Cancer type						0.734 [§]
	Colorectum	2	1.174(0.867-1.590)	0.001	0.973	0	
	Oesophagus	4	0.996(0.779-1.273)	6.875	0.143	41.815	
	Stomach	6	1.051(0.856-1.292)	9.441	0.093	47.038	
	Liver	1	2.546(0.918-7.061)	0	1	0	
	Ethnicity						
	Africa	2	1.214(0.746-1.974)	3.170	0.075	68.458	
	Americas	1	1.177(0.737-1.881)	0	1	0	
	Asia	7	0.968(0.764-1.227)	10.847	0.093	44.684	
Europe	3	1.167(0.877-1.552)	5.228	0.156	42.612		
<i>GSTP1</i> non-smokers	Overall cancer	12	1.099(0.903-1.337)	16.763	0.21	22.447	0.208*
	Cancer type						0.296 [§]
	Colorectum	2	1.245(0.920-1.685)	0.175	0.675	0	
	Oesophagus	4	1.173(0.841-1.636)	2.945	0.567	0	
	Stomach	6	0.914(0.723-1.156)	4.185	0.523	0	
	Liver	1	7.364(1.671-32.440)	0	1	0	
	Ethnicity						
	Africa	2	1.466(0.702-3.063)	6.227	0.013	83.940	
	Americas	1	1.196(0.654-2.186)	0	1	0	
	Asia	7	1.148(0.836-1.577)	8.187	0.225	26.710	
Europe	2	0.905(0.585-1.401)	0.120	0.989	0		
<i>GSTP1</i> smokers	Overall cancer	12	0.999(0.781-1.277)	31.105	0.003	58.206	0.353*
	Cancer type						0.401 [§]
	Colorectum	2	1.011(0.531-1.924)	0.025	0.874	0	
	Oesophagus	4	0.841(0.534-1.327)	21.098	0	81.041	
	Stomach	6	1.181(0.771-1.808)	7.227	0.204	30.816	
	Liver	1	0.444(0.078-2.539)	0	1	0	
	Ethnicity						
	Africa	2	0.904(0.433-1.887)	1.137	0.286	12.061	
	Americas	1	0.988(0.466-2.098)	0	1	0	
	Asia	7	0.769(0.521-1.133)	16.884	0.010	64.464	
Europe	2	1.442(0.928-2.243)	3.288	0.349	8.771		
<i>CYP1A1</i> MspI total population	Overall cancer	7	1.034(0.806-1.327)	12.85	0.045	53.306	-
	Cancer type						
	Colorectum	4	0.897(0.658-1.224)	7.928	0.048	62.16	
	Stomach	1	1.281(0.649-2.531)	0	1	0	
	Liver	2	1.253(0.800-1.963)	0.089	0.765	0	

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Stratified analysis	Subgroup analysis	No. of studies	OR (95% CI)	Heterogeneity test			Publication bias
				Q	P	I ² (%)	<i>p</i>
	Ethnicity						
	Americas	2	0.824(0.518-1.309)	5.566	0.018	82.035	
	Asia	3	1.178(0.785-1.768)	2.631	0.268	23.981	
	Europe	2	1.100(0.697-1.737)	0.330	0.565	0	
<i>CYP1A1</i>	Overall cancer	7	0.953(0.694-1.310)	8.804	0.185	31.851	-
MspI non-smokers	Cancer type						
	Colorectum	4	0.930(0.558-1.549)	7.586	0.055	60.454	
	Stomach	1	1.188(0.419-3.374)	0	1	0	
	Liver	2	0.971(0.498-1.892)	0.465	0.496	0	
	Ethnicity						
	Americas	2	0.826(0.436-1.562)	1.691	0.194	40.854	
	Asia	3	1.015(0.557-1.851)	5.693	0.058	64.871	
	Europe	2	1.105(0.558-2.189)	0.011	0.917	0	
<i>CYP1A1</i>	Overall cancer	7	1.077(0.75-1.547)	12.784	0.047	53.067	-
MspI smokers	Cancer type						
	Colorectum	4	0.833(0.535-1.296)	5.092	0.165	41.088	
	Stomach	1	1.469(0.563-3.828)	0	1	0	
	Liver	2	1.666(0.844-3.287)	2.704	0.100	63.023	
	Ethnicity						
	Americas	2	0.834(0.396-1.755)	4.920	0.027	79.676	
	Asia	3	1.290(0.674-2.470)	4.986	0.083	59.885	
	Europe	2	1.129(0.537-2.375)	0.061	0.805	0	
<i>hOGGI</i>	Overall cancer	8	1.214(0.919-1.604)	22.04	0.003	68.239	-
total population	Cancer type						
	Colorectum	2	1.073(0.600-1.918)	1.392	0.238	28.173	
	Stomach	3	1.047(0.676-1.620)	1.847	0.397	0	
	Liver	3	1.488(0.978-2.266)	11.393	0.003	82.445	
	Ethnicity						
	Americas	1	0.846(0.405-1.768)	0	1	0	
	Asia	7	1.286(0.960-1.722)	17.618	0.007	65.943	
<i>hOGGI</i>	Overall cancer	8	1.166(0.940-1.447)	3.758	0.807	0	-
non-smokers	Cancer type						
	Colorectum	2	0.938(0.580-1.517)	0.299	0.585	0	
	Stomach	3	1.084(0.751-1.565)	0.451	0.798	0	
	Liver	3	1.359(0.986-1.873)	1.197	0.550	0	
	Ethnicity						
	Americas	1	1.030(0.626-1.696)	0	1	0	
	Asia	7	1.200(0.945-1.525)	3.465	0.749	0	
	Overall cancer	8	1.238(0.816-1.879)	21.147	0.004	66.899	-

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Stratified analysis	Subgroup analysis	No. of studies	OR (95% CI)	Heterogeneity test			Publication bias
				Q	P	I ² (%)	<i>p</i>
<i>hOGGI</i>	Cancer type						
smokers	Colorectum	2	1.189(0.462-3.059)	0.932	0.334	0	
	Stomach	3	1.050(0.521-2.118)	2.484	0.289	19.479	
	Liver	3	1.463(0.747-2.868)	12.741	0.002	84.303	
	Ethnicity						
	Americas	1	0.673(0.224-2.017)	0	1	0	
	Asia	7	1.361(0.894-2.073)	16.050	0.013	62.616	
<i>XRCCI</i>	Overall cancer	7	1.060(0.556-2.020)	29.615	0	79.740	-
total population	Cancer type						
	Colorectum	1	0.651(0.207-2.041)	0	1	0	
	Oesophagus	1	1.481(0.505-4.345)	0	1	0	
	Stomach	4	0.824(0.474-1.435)	20.066	0	85.049	
	Liver	1	2.575(0.600-11.050)	0	1	0	
<i>XRCCI</i>	Overall cancer	7	0.919(0.542-1.560)	17.066	0.009	64.842	-
non-smokers	Cancer type						
	Colorectum	1	0.892(0.245-3.2455)	0	1	0	
	Oesophagus	1	1.212(0.372-3.949)	0	1	0	
	Stomach	4	0.701(0.379-1.296)	11.364	0.010	73.600	
	Liver	1	1.467(0.470-4.578)	0	1	0	
<i>XRCCI</i>	Overall cancer	7	1.089(0.510-2.325)	16.447	0.012	63.519	-
smokers	Cancer type						
	Colorectum	1	0.444(0.120-1.640)	0	1	0	
	Oesophagus	1	1.720(0.575-5.143)	0	1	0	
	Stomach	3	0.932(0.531-1.635)	9.187	0.027	67.347	
	Liver	1	2.905(0.495-17.044)	0	1	0	
<i>p53</i>	Overall cancer	6	0.847(0.446-1.609)	125.434	0	96.014	-
total population	Cancer type						
	Oesophagus	2	0.450(0.114-1.778)	97.801	0	98.978	
	Stomach	2	1.312(0.319-5.396)	1.960	0.161	48.991	
	Liver	2	1.074(0.271-4.253)	0.200	0.655	0	
<i>p53</i>	Overall cancer	6	1.058(0.505-2.221)	84.03	0	94.05	-
non-smokers	Cancer type						
	Oesophagus	2	0.450(0.114-1.778)	97.801	0	98.978	
	Stomach	2	1.312(0.319-5.396)	1.960	0.161	48.991	
	Liver	2	1.074(0.271-4.253)	0.200	0.655	0	
<i>p53</i>	Overall cancer	6	0.637(0.324-1.252)	53.116	0	90.587	-
smokers	Cancer type						
	Oesophagus	2	0.360(0.072-1.787)	41.461	0	97.588	
	Stomach	2	1.044(0.204-5.351)	2.873	0.09	65.197	

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Stratified analysis	Subgroup analysis	No. of studies	OR (95% CI)	Heterogeneity test			Publication bias
				Q	P	I ² (%)	<i>p</i>
	Liver	2	0.700(0.137-3.569)	5.809	0.016	82.785	

The bold letters show statistically significant results.

* Begg's test for publication bias.

^s Egger's test for publication bias.