

Supplementary Table S1 The three dimensions interactions of the ERCC5 SNPs-GSTP1  
rs1695-environment with the risk of atrophic gastritis

SNP genotypes-environments			AG vs. CON	
			<i>P</i>	OR(95%CI)
ERCC5 rs2094258-GSTP1 rs1695- <i>H.pylori</i> <sup>a</sup>				
GG	AA	(-)		1(Ref)
GG	AA	(+)	<0.001	3.22(1.99-5.22)
GG	GA+GG	(-)	0.935	0.98(0.58-1.66)
GG	GA+GG	(+)	<0.001	6.84(3.70-12.64)
AG+AA	AA	(-)	0.052	1.48(1.00-2.20)
AG+AA	AA	(+)	<0.001	5.13(3.32-7.91)
AG+AA	GA+GG	(-)	0.641	0.90(0.56-1.43)
AG+AA	GA+GG	(+)	<0.001	4.13(2.54-6.72)
			<i>P</i> <sub>interaction</sub> =0.379	
			interaction index=0.63	
ERCC5 rs873601-GSTP1 rs1695- <i>H.pylori</i> <sup>a</sup>				
GA+GG	AA	(-)		1(Ref)
GA+GG	AA	(+)	<0.001	3.74(2.65-5.29)
GA+GG	GA+GG	(-)	0.057	0.69(0.48-1.01)
GA+GG	GA+GG	(+)	<0.001	3.22(2.16-4.80)
AA	AA	(-)	0.340	0.81(0.52-1.25)
AA	AA	(+)	0.005	2.01(1.23-3.27)
AA	GA+GG	(-)	0.158	0.66(0.38-1.17)
AA	GA+GG	(+)	<0.001	5.82(2.81-12.05)
			<i>P</i> <sub>interaction</sub> =0.087	
			interaction index=2.84	
ERCC5 rs2094258-GSTP1 rs1695- <i>smoking</i> <sup>b</sup>				
GG	AA	(-)		1(Ref)
GG	AA	(+)	0.123	0.64(0.36-1.13)
GG	GA+GG	(-)	0.652	1.13(0.67-1.92)
GG	GA+GG	(+)	0.639	0.85(0.44-1.66)
AG+AA	AA	(-)	0.467	1.17(0.77-1.77)
AG+AA	AA	(+)	0.127	1.47(0.90-2.42)
AG+AA	GA+GG	(-)	0.893	1.03(0.65-1.64)
AG+AA	GA+GG	(+)	0.146	0.65(0.37-1.16)
			<i>P</i> <sub>interaction</sub> =0.098	
			interaction index=0.34	
ERCC5 rs873601-GSTP1 rs1695- <i>smoking</i> <sup>b</sup>				
GA+GG	AA	(-)		1(Ref)
GA+GG	AA	(+)	0.481	1.16(0.77-1.73)
GA+GG	GA+GG	(-)	0.477	0.88(0.61-1.26)
GA+GG	GA+GG	(+)	0.049	0.61(0.37-1.00)
AA	AA	(-)	0.326	0.79(0.50-1.26)
AA	AA	(+)	0.014	0.46(0.24-0.86)

AA	GA+GG	(-)	0.845	1.06(0.59-1.90)
AA	GA+GG	(+)	0.214	0.65(0.33-1.29)
$P_{\text{interaction}}=0.595$				
interaction index=1.47				
ERCC5 rs2094258-GSTP1 rs1695- <i>Alcohol</i> <sup>b</sup>				
GG	AA	(-)		1(Ref)
GG	AA	(+)	0.119	0.60(0.31-1.14)
GG	GA+GG	(-)	0.652	1.12(0.68-1.84)
GG	GA+GG	(+)	0.868	0.94(0.46-1.94)
AG+AA	AA	(-)	0.199	1.29(0.88-1.89)
AG+AA	AA	(+)	0.148	1.48(0.87-2.53)
AG+AA	GA+GG	(-)	0.829	1.05(0.68-1.62)
AG+AA	GA+GG	(+)	0.367	0.75(0.41-1.40)
$P_{\text{interaction}}=0.147$				
interaction index=0.36				
ERCC5 rs873601-GSTP1 rs1695- <i>Alcohol</i> <sup>b</sup>				
GA+GG	AA	(-)		1(Ref)
GA+GG	AA	(+)	0.791	1.06(0.68-1.67)
GA+GG	GA+GG	(-)	0.264	0.82(0.58-1.16)
GA+GG	GA+GG	(+)	0.123	0.66(0.38-1.12)
AA	AA	(-)	0.174	0.74(0.49-1.14)
AA	AA	(+)	0.015	0.39(0.18-0.83)
AA	GA+GG	(-)	0.870	0.96(0.56-1.64)
AA	GA+GG	(+)	0.270	0.64(0.29-1.42)
$P_{\text{interaction}}=0.396$				
interaction index=1.97				

Note: <sup>a</sup> $P$  for interaction was used Logistic Regression adjusted by gender and age. <sup>b</sup> $P$  adjusted by gender, age and H.pylori infection status. CON: controls; AG: atrophic gastritis.