

Supplementary Table SIII. 82 metabolites associated with CRC risk.

ID.Exposure	Exposure	SNPs	OR	P
GCST90199621	Carnitine levels	25	0.938(0.882-0.997)	0.042
GCST90199649	1-stearoyl-2-arachidonoyl-GPI (18:0/20:4) levels	24	1.082(1.009-1.159)	0.026
GCST90199663	4-acetylphenol sulfate levels	19	0.879(0.792-0.973)	0.013
GCST90199685	2-linoleoylglycerol (18:2) levels	21	0.909(0.830-0.996)	0.041
GCST90199704	3-hydroxysebacate levels	20	0.903(0.825-0.988)	0.026
GCST90199708	Propionylcarnitine (c3) levels	21	0.917(0.842-0.999)	0.047
GCST90199710	Docosatrienoate (22:3n3) levels	23	1.103(1.002-1.213)	0.045
GCST90199728	10-nonadecenoate (19:1n9) levels	11	0.835(0.708-0.985)	0.032
GCST90199788	1-arachidonoyl-gpc (20:4n6) levels	28	1.124(1.068-1.182)	< 0.001
GCST90199885	Alpha-ketoglutaramate levels	20	1.107(1.008-1.216)	0.033
GCST90199988	Tyramine O-sulfate levels	22	0.858(0.778-0.947)	0.003
GCST90199990	3-hydroxypyridine sulfate levels	23	1.178(1.054-1.316)	0.003
GCST90200011	Arabitol/xylitol levels	24	1.122(1.016-1.238)	0.023
GCST90200030	1,2-dilinoleoyl-GPC (18:2/18:2) levels	17	0.837(0.767-0.914)	< 0.001
GCST90200082	1-oleoyl-2-linoleoyl-GPE (18:1/18:2) levels	31	0.928(0.870-0.989)	0.023
GCST90200095	1-linoleoyl-2-linolenoyl-GPC (18:2/18:3) levels	21	0.905(0.832-0.983)	0.019
GCST90200098	Ceramide (d18:1/24:1) levels	29	1.105(1.026-1.191)	0.008
GCST90200100	Perfluorooctanesulfonate (PFOS) levels	24	0.884(0.806-0.970)	0.009
GCST90200109	Linoleoyl-arachidonoyl-glycerol (18:2/20:4) [2] levels	16	1.149(1.049-1.258)	0.002
GCST90200144	Dihomo-linoleoylcarnitine (C20:2) levels	31	0.919(0.857-0.985)	0.017
GCST90200155	2-furoylcarnitine levels	20	0.893(0.812-0.984)	0.022
GCST90200161	2-hydroxyarachidate levels	23	0.907(0.829-0.993)	0.036
GCST90200171	Perfluorooctanoate (PFOA) levels	20	0.887(0.796-0.987)	0.029
GCST90200186	8-methoxykynurenate levels	26	1.099(1.009-1.197)	0.029
GCST90200187	Tetradecadienoate (14:2) levels	14	1.197(1.049-1.367)	0.007
GCST90200188	3-amino-2-piperidone levels	24	0.875(0.789-0.971)	0.012
GCST90200215	4-ethylcatechol sulfate levels	23	1.115(1.011-1.229)	0.029
GCST90200219	Cholic acid glucuronide levels	20	0.893(0.834-0.957)	0.001
GCST90200324	Anthranilate levels	27	0.881(0.816-0.949)	0.001

GCST90200329	3-phosphoglycerate levels	23	1.161(1.052-1.280)	0.002
GCST90200340	1-palmitoyl-2-oleoyl-gpc (16:0/18:1) levels	23	1.111(1.007-1.227)	0.036
GCST90200349	Eicosapentaenoate (EPA; 20:5n3) levels	10	1.208(1.041-1.403)	0.012
GCST90200381	S-1-pyrroline-5-carboxylate levels	19	1.149(1.035-1.274)	0.008
GCST90200411	Plasma free proline levels	31	0.906(0.842-0.975)	0.009
GCST90200430	Pyruvate levels	21	0.870(0.785-0.964)	0.008
GCST90200439	Cysteine levels	14	0.883(0.780-0.999)	0.047
GCST90200450	Caproate (6:0) levels	24	0.909(0.837-0.987)	0.023
GCST90200460	X-11372 levels	26	0.902(0.823-0.988)	0.027
GCST90200468	X-11847 levels	18	1.117(1.006-1.240)	0.038
GCST90200483	X-12216 levels	23	1.111(1.010-1.222)	0.029
GCST90200488	X-12117 levels	31	1.079(1.011-1.151)	0.021
GCST90200502	X-12707 levels	30	0.920(0.849-0.995)	0.037
GCST90200534	X-16580 levels	17	0.893(0.800-0.998)	0.047
GCST90200579	X-21442 levels	19	0.864(0.780-0.956)	0.005
GCST90200605	X-21845 levels	21	1.111(1.020-1.210)	0.015
GCST90200614	X-23780 levels	23	0.890(0.806-0.983)	0.022
GCST90200618	X-23782 levels	20	0.879(0.784-0.984)	0.026
GCST90200619	X-24295 levels	20	0.877(0.790-0.973)	0.013
GCST90200634	X-24518 levels	23	1.096(1.032-1.165)	0.002
GCST90200646	X-24801 levels	32	0.906(0.838-0.980)	0.014
GCST90200650	X-25109 levels	29	0.924(0.854-0.999)	0.048
GCST90200651	X-24947 levels	26	1.053(1.001-1.107)	0.042
GCST90200673	Carnitine C4 levels	38	1.063(1.015-1.114)	0.008
GCST90200685	1-stearoyl-2-arachidonoyl-gpc (18:0/20:4) levels	34	1.104(1.055-1.156)	< 0.001
GCST90200740	Arachidonate (20:4n6) to oleate to vaccenate (18:1) ratio	19	1.129(1.053-1.211)	0.001
GCST90200769	Phosphate to mannose ratio	21	0.903(0.826-0.986)	0.024
GCST90200804	Spermidine to pyruvate ratio	15	1.139(1.014-1.279)	0.028
GCST90200841	Adenosine 5'-diphosphate (ADP) to oxalate (ethanedioate) ratio	23	1.069(1.000-1.142)	0.049
GCST90200844	Aspartate to phosphate ratio	17	1.127(1.010-1.257)	0.032
GCST90200854	Arginine to phosphate ratio	22	1.141(1.042-1.251)	0.004

GCST90200893	Taurine to cysteine ratio	21	0.882(0.793-0.981)	0.021
GCST90200908	Retinol (Vitamin A) to linoleoyl-arachidonoyl-glycerol (18:2 to 20:4) [2] ratio	20	0.887(0.814-0.966)	0.006
GCST90200909	Uridine to 2'-deoxyuridine ratio	29	1.090(1.006-1.181)	0.035
GCST90200938	Alpha-ketoglutarate to alanine ratio	21	0.894(0.811-0.987)	0.026
GCST90200948	Adenosine 5'-diphosphate (ADP) to mannitol to sorbitol ratio	20	1.097(1.012-1.189)	0.024
GCST90200955	Adenosine 5'-diphosphate (ADP) to choline phosphate ratio	22	1.091(1.011-1.177)	0.024
GCST90200967	Phosphate to urate ratio	32	1.113(1.024-1.209)	0.011
GCST90200979	Arachidonate (20:4n6) to linoleate (18:2n6) ratio	24	1.178(1.083-1.280)	< 0.001
GCST90199742	1-linoleoyl-gpc (18:2) levels	28	0.884(0.797-0.981)	0.020
GCST90199770	1-arachidonoylglycerol (20:4) levels	23	1.122(1.007-1.250)	0.037
GCST90199995	Sphingomyelin (d18:1/20:2, d18:2/20:1, d16:1/22:2) levels	26	0.822(0.738-0.916)	< 0.001
GCST90200037	1-stearoyl-2-linoleoyl-gpc (18:0/18:2) levels	22	0.892(0.800-0.995)	0.040
GCST90200043	1-palmitoyl-2-docosahexaenoyl-gpc (16:0/22:6) levels	23	1.118(1.008-1.241)	0.035
GCST90200052	1-(1-enyl-palmitoyl)-2-arachidonoyl-gpc (p-16:0/20:4) levels	33	1.108(1.034-1.187)	0.003
GCST90200083	1-(1-enyl-palmitoyl)-2-palmitoyl-GPC (P-16:0/16:0) levels	32	1.121(1.041-1.209)	0.003
GCST90200086	Arachidonoylcholine levels	19	1.138(1.012-1.281)	0.032
GCST90200126	Sphingomyelin (d18:2/23:1) levels	26	0.849(0.733-0.984)	0.029
GCST90200138	Docosatrienoate (22:3n6) levels	15	1.133(1.007-1.274)	0.038
GCST90200393	Phosphate levels (UKB data field 30810)	22	1.161(1.022-1.320)	0.022
GCST90200541	X-15523 levels	88	1.038(1.003-1.073)	0.033
GCST90200692	1-palmitoyl-2-arachidonoyl-gpc (16:0/20:4n6) levels	31	1.105(1.036-1.178)	0.002
GCST90200902	Phosphate to linoleoyl-arachidonoyl-glycerol (18:2 to 20:4) [2] ratio	19	0.889(0.808-0.977)	0.015

*SNP single nucleotide polymorphism, OR odds ratio, P p-value.