Supplementary Table 2. *m/z* of statistically significantly differing metabolites detected in negative ionisation mode.

ESI mode	Detected m/z	Rt.min	Theoretical MW	Candidate compounds	Log FC [RSV+Q vs HFS]	Log FC [Q vs HFS]	Log FC [RSV vs HFS]	*p* (Corr)
-	179.0641	3.4485	179.0616	- Cyclohexylsulfamate - (R)C(R)S-S-Propylcysteine sulfoxide	20.4	19.8	0.0	*p*< 0.001
			179.0695	- Acetylisoniazid				
			179.0582	- p-Acetaminobenzoic acid - 4-Oxo-4-(3-pyridyl)-butanoic acid - 5,8-Dihydroxy-3,4-dihydrocarbostyril - Hippuric acid - N-Acetylanthranilate - 2,5,6-Trihydroxy-5,6-dihydroquinoline - Methyl n-formylanthranilate - 1-(4-Methoxyphenyl)-2-nitroethylene - Adrenochrome				
-	326.1971	6.7775	326.1994	- Ajmaline - (-)-Tortuosamine - Hydroquinidine - Hydroquinine	16.0	-3.2	6.5	*p*= 0.010
			326.1916	- 2-Dodecylbenzenesulfonic acid				
			326.1882	- Pregna-4,16-diene-3,11,20-trione - Isoacitretin - AA861 - Moxestrol - 2-Methoxy-17a-ethynylestradiol - 2-Hydroxymestranol - Acitretin				
			326.2093	- 9K,12,13-diHODE - (3b,6b,8a,12a)-8,12-Epoxy-7(11)-eremophilene-6,8,12-trimethoxy-3-ol - 2R-hydroperoxy-9Z,12Z,15Z-octadecatrienoic acid - 2,3-Dinor-11b-PGF2a - 2,3-dinor-8-iso-PGF2a - 2,3-dinor-PGE1 - 2,3-dinor Prostaglandin E1				

Supplementary Table 2. Continued

ESI mode	Detected m/z	Rt.min	Theoretical MW	Candidate compounds	Log FC [RSV+Q vs HFS]	Log FC [Q vs HFS]	Log FC [RSV vs HFS]	*p* (Corr)
-	276.0868	5.7192	276.0845	- Ranunculin	14.5	0.0	14.3	*p*< 0.001
			276.0939	- Benzo[ghi]perylene - Anthanthrene - Indeno[1,2,3-cd]pyrene				
			276.0798	- 3',4'-dihydroxyflurbiprofen - Clenbuterol				
			276.078	- Biotin sulfone				
			276.0958	- Glu Glu - thymidine glycol - Gamma Glutamylglutamic acid - Glutamyl-glutamic acid				
			276.0962	- 4,4-Bis(p-fluorophenyl)butyric acid				
			276.097	- Triphenylsilanol				
-	124.0548	5.0447	124.0524	- 2-Acetyl-5-methylfuran - Orcinol - 4,6-Heptadiyne-1,3-diol - 1-(2-Furanyl)-1-propanone - Guaiacol - p-Methylolphenol - 1-(2-Furanyl)-2-propanone - 2-Acetyl-3-methylfuran - Mequinol - trans,trans-hepta-2,4,6-trienoic acid - Salicyl alcohol - cis,trans-hepta-2,4,6-trienoic acid - 4-Methylcatechol - 3-Hydroxybenzyl alcohol - 2,3-Dihydroxytoluene	12.1	0.0	15.2	*p*< 0.001
-	435.2889	7.0480	435.2807	- N-acetyl-S-geranylgeranyl-L-Cysteine	8.8	11.4	-0.1	*p*= 0.011

Supplementary Table 2. Continued

ESI mode	Detected m/z	Rt.min	Theoretical MW	Candidate compounds	Log FC [RSV+Q vs HFS]	Log FC [Q vs HFS]	Log FC [RSV vs HFS]	*p* (Corr)
-	230.0978	5.1591	230.0977	- S-methylcaptopril	6.3	2.4	6.6	*p*= 0.029
			230.0943	- Demethylsuberosin - Osthenol - Kawain - Pindone - DL-Kavain - (S)-Naproxen - Pondaplin - Aucuparin - NOPM - 6-O-Methyleuparin - Dihydroresveratrol - Demethylbatatasin IV				
			230.1031	- N- (3-TRIFLUOROMETHYLPHENYL)PIPERAZINE (TFMPP)				
			230.0903	- Prolyl-Aspartate - Aspartyl-Proline - 1-(gamma-Glutamylamino)cyclopropanecarboxylic acid - (2S,3'S)-alpha-Amino-2-carboxy-5-oxo-1-pyrrolidinebutanoic acid - 2-Acetyl-5-tetrahydroxybutyl Imidazole - Asp Pro - Pro Asp				
			230.1055	- 1,2-Dihydroxytacrine - 1,4-Dihydroxytacrine - (1xi,3xi)-1,2,3,4-Tetrahydro-1-methyl-beta-carboline-3-carboxylic acid - 1,7-Dihydroxytacrine - 2,4-Dihydroxytacrine				
-	318.1633	4.3943	318.1652	- Ser Gly Arg - More peptides	-0.9	-1.1	-0.6	*p*= 0.039
			318.1692	- Eseramine - LY171883				
			318.1558	- 2-bromopalmitaldehyde				
			318.1555	- Fluvoxamine				
			318.1539	- Ser Val Asn - Other peptides				

Supplementary Table 2. Continued

ESI mode	Detected m/z	Rt.min	Theoretical MW	Candidate compounds	Log FC [RSV+Q vs HFS]	Log FC [Q vs HFS]	Log FC [RSV vs HFS]	*p* (Corr)
-	332.2617	5.3027	332.2563	- Phloionolic acid - 9R,10S,18-trihydroxy-stearic acid - 9,10,13-Trihydroxystearic acid - 18-hydroxy-9S,10R-dihydroxy-stearic acid	-6.7	6.8	-6.7	*p*< 0.001
			332.2715	- 8, 12, 16, 19 (20)-docosatetraenoic acid; C22:4n-3,6,10,14 - C22:4n-9,12,15,18 - 22:4(7Z,13Z,16Z,19Z) - 3-Hydroxy-1-phenyl-1-hexadecanone - 2-Methyl-5-(8-pentadecenyl)-1,3-benzenediol - 5alpha-Androstan-17beta-ol propionate - 1-Hydroxy-1-phenyl-3-hexadecanone - 22:4(4Z,7Z,10Z,13E) - (±)-CP 47,497-C8-homolog - 8,12,16,19-docosatetraenoic acid - Adrenic Acid - 4,7,10,13-docosatetraenoic acid - Arachidonic acid ethyl ester - cis-4,10,13,16-Docosatetraenoic Acid - 10-[3]-ladderane-decanoic acid - ω-3 Arachidonic Acid ethyl ester - 3,7,11,15-Tetramethyl-2E,6E,10E,14-hexadecatetraenyl acetate				
-	638.3921	5.0435	638.3948	- PA(20:5(5Z,8Z,11Z,14Z,17Z)/12:0) - PA(18:4(6Z,9Z,12Z,15Z)/14:1(9Z)) - PA(14:1(9Z)/18:4(6Z,9Z,12Z,15Z)) - PA(12:0/20:5(5Z,8Z,11Z,14Z,17Z))	14.9	0.0	7.3	*p*< 0.001
			638.4159	- PG(12:0/14:0) - PG(13:0/13:0) - PG(14:0/12:0)				
			638.3666	- 26-Glucosyl-1,3,11,22-tetrahydroxyergosta-5,24-dien-26-oate				

Supplementary Table 2. Continued

ESI mode	Detected m/z	Rt.min	Theoretical MW	Candidate compounds	Log FC [RSV+Q vs HFS]	Log FC [Q vs HFS]	Log FC [RSV vs HFS]	*p* (Corr)
-	316.1365	4.1682	316.1383	- Pro Gly Gly Ser - Other peptides	8.5	0.0	12.6	*p*< 0.0001
			316.1311	- 4,2',6'-Trihydroxy-4'-methoxy-3',5'-dimethyldihydrochalcone - Flavokawin A - 2'-Hydroxy-3',4',6'-trimethoxydihydrochalcone - Kuhlmanniquinol - (2S)-4'-Hydroxy-5,7,3'-trimethoxyflavan - Combrestatin A4 - 4-Hydroxy-5,7,4'-trimethoxyflavan - 2-(3,5-Dimethoxyphenyl)-3,4-dihydro-7-methoxy-2H-1-benzopyran-5-ol - 5'-Hydroxy-3',4',7-trimethoxyflavan - O-Methylodoratol - 7-Hydroxy-2',4',5'-trimethoxyisoflavan - 7-Hydroxy-2',3',4'-trimethoxyisoflavan - EPIAFZELECHIN TRIMETHYL ETHER - Loureirin B - Verimol A - 2-Hydroxy-3,4,6-trimethoxydihydrochalcone - Verimol B - 2-Hydroxy-4,5,6-trimethoxydihydrochalcone - Sorgolactone				
			316.1462	- 11,11,11,12,12-Pentafluoro-9Z-dodecenyl acetate				
			316.1463	- 4,7,10,13,16,19-Docosahexaynoic acid				
			316.1246	- Promazine N-oxide sulfoxide - 2-Hydroxypromazine sulfoxide - 3-Hydroxypromazine sulfoxide				

Statistical analyses were performed using One-Way ANOVA followed by Tukey range test and *p* values were corrected by Benjamini-Hochberg procedure. ESI, electrospray ionization mode; Rt, retention time; MW, molecular weight; HFS, high fat sucrose diet-fed control rats; RSV, supplemented with 15 mg/kg BW/day of *trans*-resveratrol; Q, supplemented with 30 mg/kg BW/day of quercetin; RSV + Q, supplemented with a combination of *trans*-resveratrol and quercetin at the same doses; Log FC, log2 value of fold change.