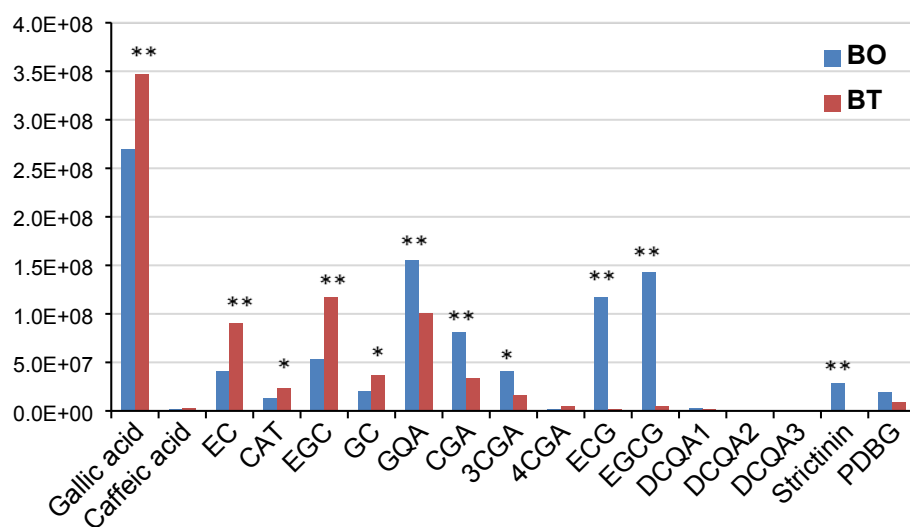


Supplementary information

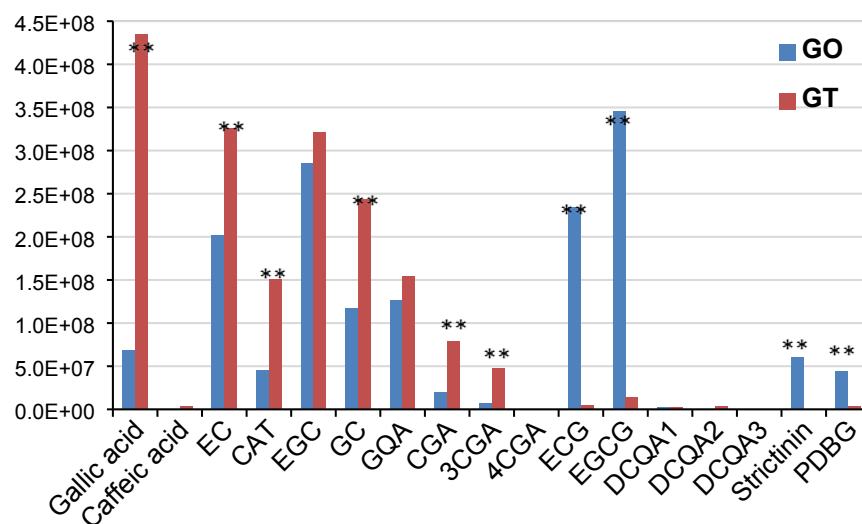
Figure S1 Relative amounts of phenolic components in teas

A Black tea

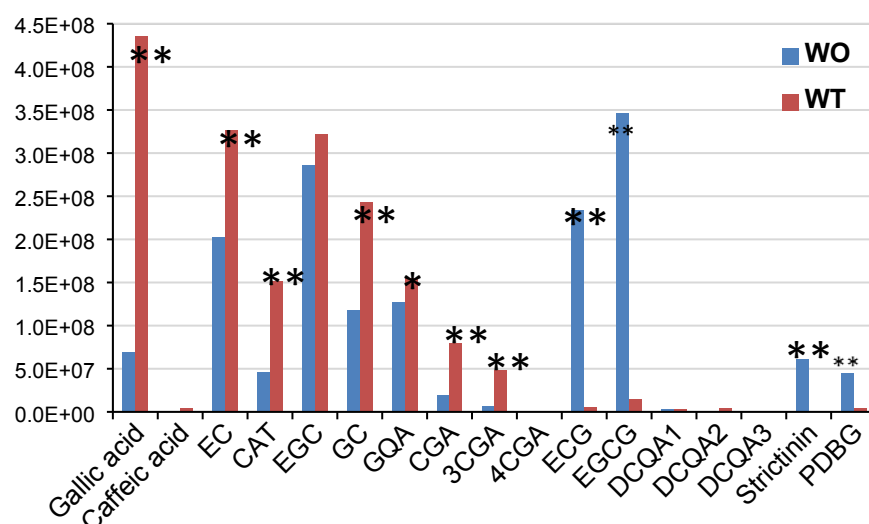
(BO = original, BT = tannase-treated)



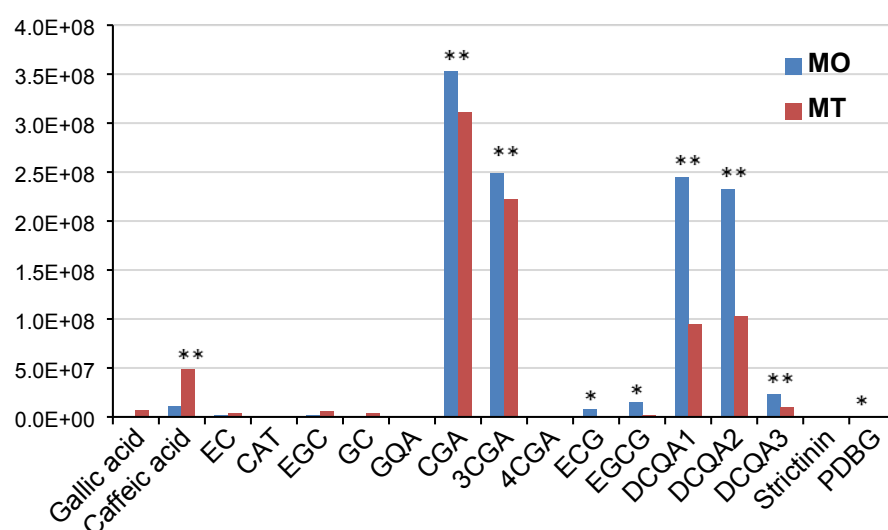
B Green tea



C White tea



D Mate tea



All figures are average MS peak areas from three samples. EC = epicatechin, CAT = catechin, EGC = epigallocatechin, GC = galocatechin, GQA = 5-galloyl quinic acid, CGA = chlorogenic acid, 3CGA = 3-*O*-caffeoylquinic acid, 4CGA = 4-*O*-caffeoylquinic acid, ECG = epicatechin gallate, EGCG = epigallocatechin gallate, DCQA = dicaffeoyl quinic acid, PDBG = Prodelphinidin B 2-3'-*O*-gallate. * = $p < 0.05$, ** = $p < 0.01$, no annotation = NS by two tailed T-test. Data obtained according to the methods described in Allwood, J.W., Alrabiah, H., Correa, E., Vaughan, A. Xu, Y., Upton, M., & Goodacre, R. (2014). A workflow for bacterial metabolic fingerprinting and lipid profiling: application to Ciprofloxacin challenged *Escherichia coli*. *Metabolomics* 11: 438–453.

Fig. 1E. Caffeine contents

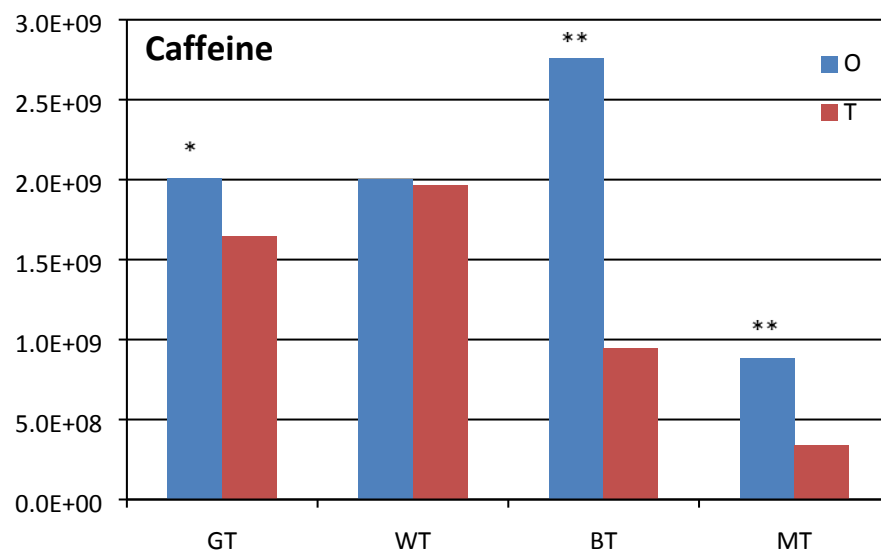
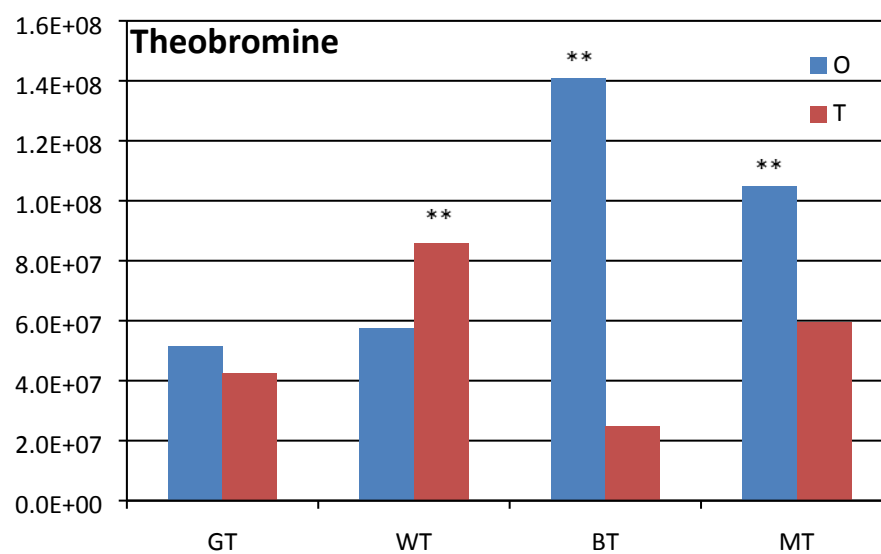
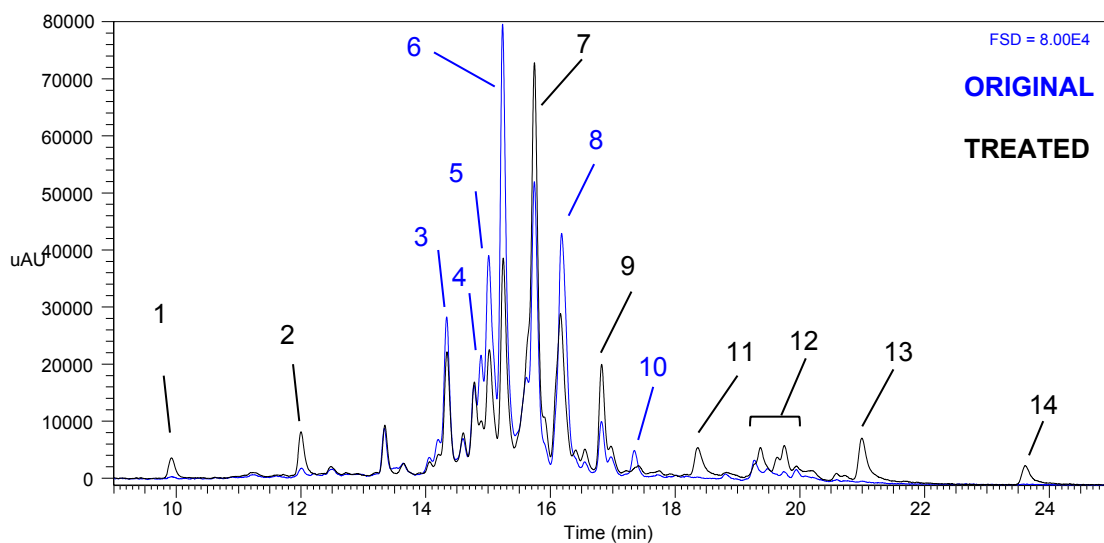


Fig. 1F. Theobromine content



All figures are average MS peak areas from three samples. * = $p < 0.05$, ** = $p < 0.01$, no annotation = NS by two tailed T-test. O = original sample, T = treated sample.

Figure S2. Flavonol peaks in white tea samples



White tea – Channel B at 365 nm

Putative identification of peaks

Peak	Putative ID	m/z [$[M-H]^-$ and main MS ²	Effect
1	Chlorogenic acid	353 , <u>191</u> , 179	+
2	Chlorogenic acid	353 , <u>191</u> , 179	+
3	Arabinosyl vitexin	563 , 503, 473, 443, 383, 353	-
4	Myricetin Hexoside	479 , 317	-
5	Q-HexRhaHex	771 , 609, 463, <u>301</u>	-
6	Q-HexRhaHex	771 , 609, 463, <u>301</u>	-
7	Q-Rut	609 , 301	+
8	K-HexRhaHex	755 , 595, <u>301</u>	-
9	K-Rutinoside	593 , 285	+
10	K-Hexoside	447 , 285	-
11	Myricetin	317	+
12	K-HexRhaCoumPentHex	1033 , 887	+
	Q-RhaCoumPentHex	887 , <u>741</u> , 447, 301	+
	K-HexRhaCoumHex	901 , 755	+
13	Quercetin (Q)	301	+
14	Kaempferol (K)	285	+

+ = increase; - = decrease. Underlined MS² fragments are the major products.

Polyphenol identifications are supported by Gondoin et al (2010).

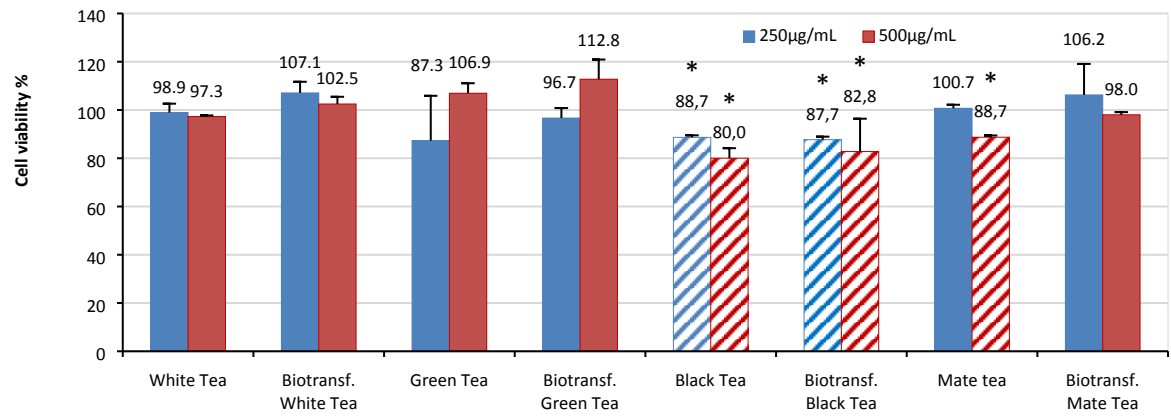


Figure S3. Effect of tea extracts on 3T3-L1 cell viability. Two concentrations of tea extracts (250 and 500 µg of TPC/mL) were applied. Results are means of three replicate experiments ± standard deviation. Values different from control group at * $p < 0.05$ are shown in hatched columns (Analysis of variance, followed by Tukey's test).