

Table S1: Primers for quantitative PCR analysis of gene expression.

Target gene	Primers sequence (5' . .3')	Product size (bp)	Reference
<i>eef-1a</i>	Sense: TGCCCCTGGACACAGAGATT	90	[61]
	Antisense: CCCACACCACCAGCAACAA		
<i>cyp1a</i>	Sense: TCAACTTACCTCTGCTGGAAGC	68	[62]
	Antisense: GATGAACGGCAGGAAGGA		
<i>ahr</i>	Sense: GTGTTCTATGCCTCTCCTACTATC	90	[63]
	Antisense: GTCATCTGTGTGGATCAGCTCAA		

Table S2: Fluorescence quenching: dose dependent attenuation of fluorescence intensity caused by GO.

GO g/ml	Resorufin EROD		Resorufin AB		HFC		5'-CF		NR		ROS	
	(M)		(M)		BFCOD (M)		(M)		(mg/ml)		(M)	
	5	0.5	1	0.1	40	4	4	0.4	0.3	0.03	100	10
75	16.5	11.00	16.37	17.76	16.5	15.41	10.86	8.03	7.62	9.38	5.67	7.68
37.5	8.68	5.73	8.35	6.92	11.03	6.78	7.56	0.09	0	1.74	1.98	1.05
18.75	3.42	1.41	2.94	1.79	3.39	0.5	1.29	0.4	0	0.20	0.5	0.3
9.4	5.8	1.64	2.87	0	2.66	0.6	3.79	0	0	1.18	0	0.1
4.7	6	0	0.27	0	3.1	0.75	1.62	0	0	0	0	0
2.3	1.63	0	2.87	0	3.72	0.07	0	0	0	0	0	0
1.17	0	0	0	0	0	0	0	0	0	0	0	0
0.6	0	0	0	0	0	0	0	0	0	0	0	0
0.3	0	0	0	0	0	0	0	0	0	0	0	0

For all fluorophores a dose dependent attenuation of fluorescence intensity (%) was determined. Only at the highest concentration of GO suspension tested (75 g/ml) was the degree of quenching between 10% and 20%. The degree of quenching was independent of the fluorophore concentration.

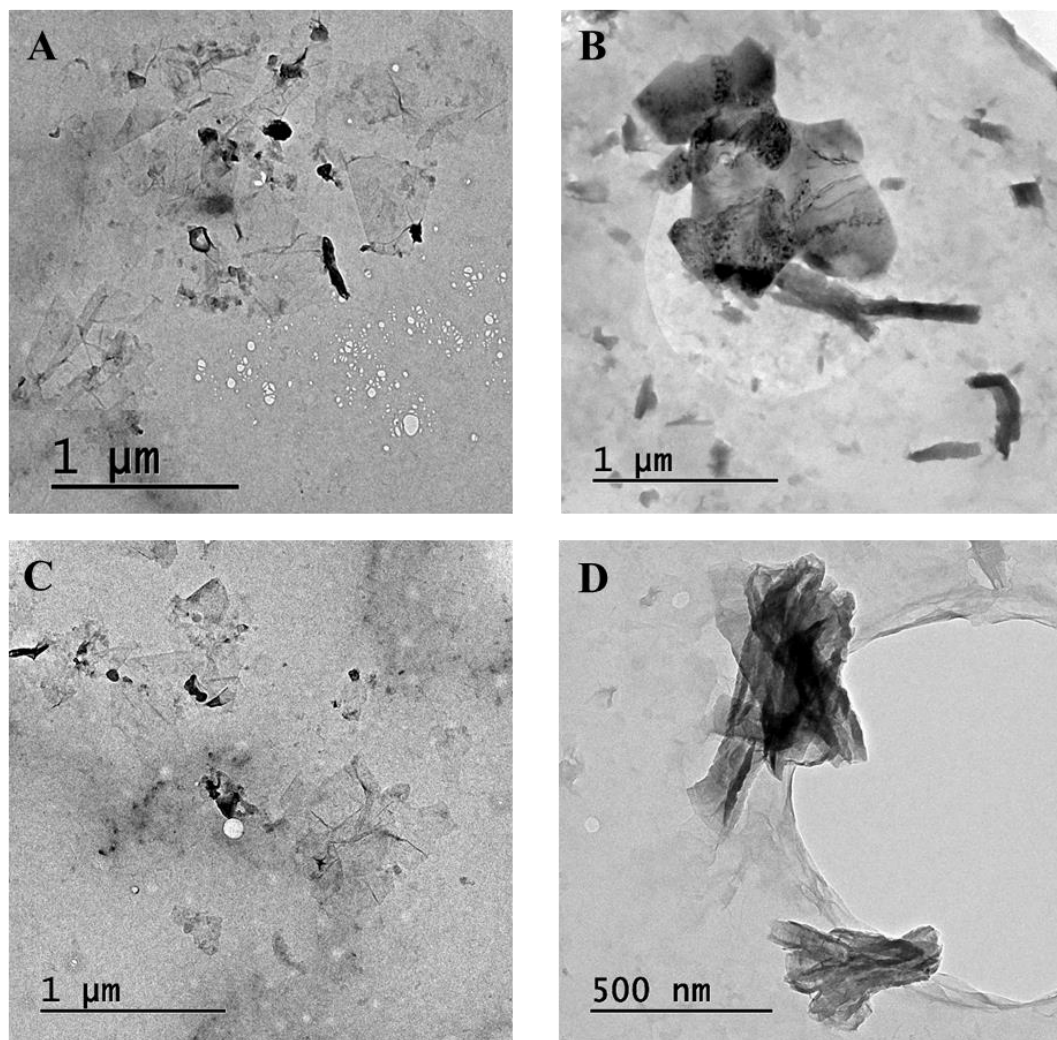


Figure S1. TEM micrographs of GO suspensions in MilliQ water (A, C) and in L-15 media (B, D) confirmed the presence of single or few layer graphene sheets, The images revealed no remarkable differences in size or shape between Milli-Q water (Fig.S1A, C) and L-15 media dispersions (Fig. S1B, D at different exposure times; 0 days (A, B) and 7 days (C, D).

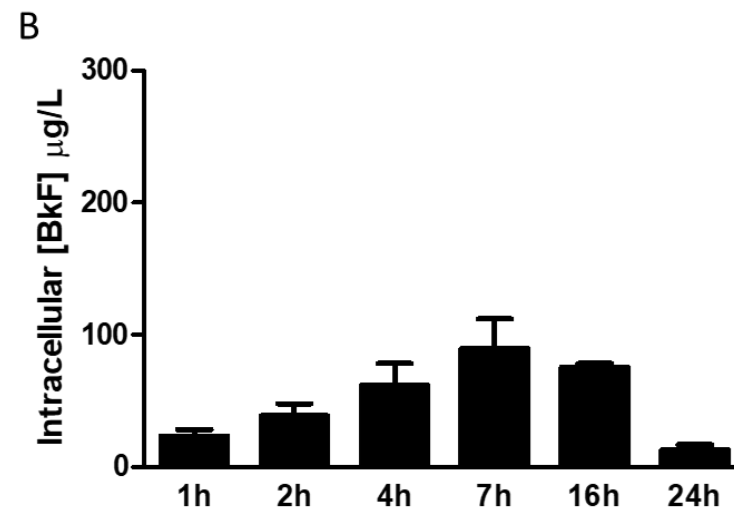
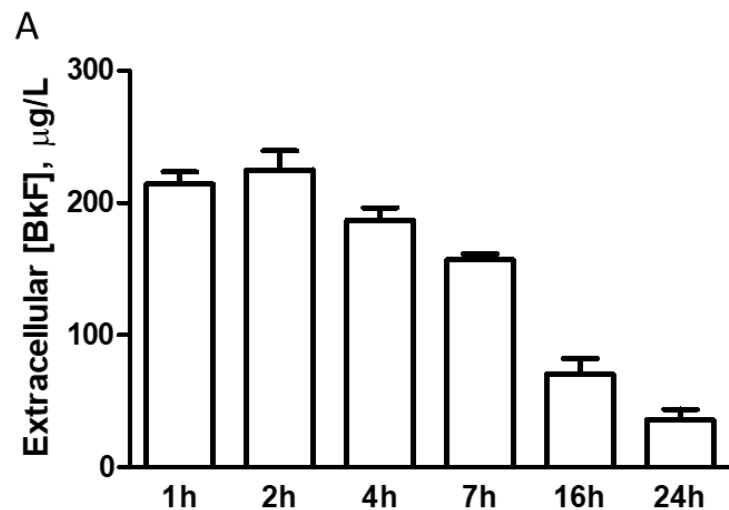


Figure S2. Extracellular (A) and intracellular (B) BkF levels assessed by means of SPE-HPLC-FLD. RTL-W1 cells were exposed to BkF at 1 M (252.31 µg/L) for different times (1h to 24h, period corresponding to pre-exposure to BkF). Media and cells were collected and processed to BkF determination.