

Table SI. Cell cycle distribution of MIA PaCa-2 cells after treatment with gemcitabine in the presence and absence of fucoxanthin.

Treatment (nM)	G ₀ -G ₁	G ₂ -M	S	sub-G ₁
Control, 48 h	48.78±0.77	20.40±0.84	19.40±0.42	8.00±0.52
Control, 72 h	65.31±0.56	14.37±0.36	10.56±0.46	7.07±0.81
FX 150, 48 h	47.82±4.05	18.70±0.46	20.41±0.22	8.18±0.53
FX 150, 72 h	65.61±0.49	14.92±0.63	8.36±0.36	7.73±0.29
FX 250, 48 h	48.28±2.61	18.26±1.79	19.77±0.35	8.70±0.14
FX 250, 72 h	66.61±0.67	14.97±0.39	7.13±0.45	8.35±0.37
FX 300, 48 h	52.53±2.22	19.24±1.74	16.89±1.31	7.46±0.11
FX 300, 72 h	67.21±1.09	12.77±0.31	6.49±0.17	10.08±0.37
GEM 25, 48 h	6.85±0.52	8.64±0.65	62.73±0.81	16.20±1.51
GEM 25, 72 h	37.07±1.04	7.62±4.06	29.40±1.44	25.09±0.78
25+150, 48 h	6.91±0.61	9.85±0.60	65.56±1.51	15.63±0.69
25+150, 72 h	36.80±1.10	6.95±0.45	28.84±1.42	27.03±0.59
25+250, 48 h	6.66±0.30	7.76±0.32	67.88±3.09	15.79± 0.18
25+250, 72 h	33.16±0.54	8.84±0.45	28.97±0.96	29.97± 0.84
25+300, 48 h	6.85±0.67	8.01±0.62	69.34±0.10	15.8± 0.89
25+300, 72 h	36.79±0.61	1.12±0.08	25.01±0.81	33.69± 0.22
GEM 50, 48 h	8.39±0.36	4.73±0.25	64.73±2.74	18.68± 0.13
GEM 50, 72 h	11.96±1.09	5.01±0.34	35.60±2.01	39.32±0.65
50+150, 48 h	9.05±0.88	3.29±0.34	69.96±2.56	14.16±0.84
50+150, 72 h	13.84±1.08	7.31±0.20	34.38±0.40	40.93±0.56
50+250, 48 h	7.12±0.40	4.58±0.28	70.46±3.68	15.32±1.03
50+250, 72 h	12.29±1.38	7.61±0.18	35.57±1.82	42.53±0.21
50+300, 48 h	5.44±0.15	4.39±0.12	71.94±3.33	16.64±1.20
50+300, 72 h	15.28±1.52	7.01±0.68	33.56±2.53	43.87±0.59
FX 10 µM, 48 h	59.51±2.08	12.72±0.33	12.12±0.51	12.83±0.14
FX 10 µM, 72 h	63.49±1.86	17.85±1.04	4.94±0.15	11.80±0.14

Cells treated with gemcitabine, fucoxanthin or a combination of the two drugs were harvested, stained with propidium iodide and analysed at 48 and 72 h. Data represent the percentage of each phase (%) after 48 h of treatment and 72 h of treatment and are expressed as the mean ± SD (n=3). GEM, gemcitabine; FX, fucoxanthin.

Table SII. Cell cycle distribution of PANC-1 cells after treatment with gemcitabine in the presence and absence of fucoxanthin.

Treatment	G ₀ -G ₁	G ₂ -M	S	sub-G ₁
Control, 48 h	51.08±1.47	23.21±0.80	16.71±0.62	5.79±0.87
Control, 72 h	56.65±0.39	18.83±0.15	11.61±0.18	9.00±0.51
GEM 50 nM, 48 h	72.05±0.26	2.72±0.12	11.57±0.35	11.83±0.37
GEM 50 nM, 72 h	64.57±0.48	1.96±0.11	13.73±0.38	20.22±1.07
GEM 500 nM, 48 h	70.32±0.14	3.68±0.30	13.75±0.14	11.21±0.34
GEM 500 nM, 72 h	63.82±0.82	0.57±0.03	10.65±0.45	24.42±0.36
FX 10 µM, 48 h	70.65±1.90	13.49±0.81	5.45±0.31	8.7±0.13
FX 10 µM, 72 h	70.70±0.66	8.84±0.33	3.66±0.39	15.22±0.43
10+50, 48 h	76.51±0.37	2.41±0.20	7.82±0.68	12.55±0.34
10+50, 72 h	64.98±0.55	2.74±0.16	8.60±0.82	23.51±0.82
10+500, 48 h	74.23±0.85	3.30±0.19	9.78±0.56	13.48±0.35
10+500, 72 h	58.44±0.19	1.52±0.34	8.71±0.26	31.65±0.26
FX 20 µM, 48 h	63.11±0.94	14.74±0.56	4.81±0.57	14.89±0.44
FX 20 µM, 72 h	52.29±0.11	15.90±0.62	3.44±0.12	24.70±1.01
20+50, 48 h	65.25±0.33	6.06±0.61	12.45±0.12	16.37±0.53
20+50, 72 h	49.58±0.21	3.60±0.35	15.68±0.14	30.04±0.56
20+500, 48 h	59.39±0.76	5.23±0.85	12.82±0.47	22.11±0.63
20+500, 72 h	49.51±0.30	3.61±0.45	13.36±0.33	33.66±0.53
GEM 50 µM, 48 h	65.41±0.16	2.66±0.12	13.41±0.43	18.72±0.19
GEM 50 µM, 72 h	25.99±1.08	5.34±0.24	17.43±0.23	49.43±0.92

Cells treated with gemcitabine, fucoxanthin or a combination of the two drugs were harvested, stained with propidium iodide and analysed at 48 and 72 h. Data represent the percentage of each phase (%) after 48 h of treatment and 72 h of treatment and are expressed as the mean ± SD (n=3). GEM, gemcitabine; FX, fucoxanthin.

Table SIII. Cell cycle distribution of 293 cells after treatment with gemcitabine in the presence and absence of fucoxanthin.

Treatment (nM)	G0-G1	G2-M	S	sub-G1
Control, 48 h	57.25±2.06	13.64±0.93	15.29±0.18	7.38±0.32
Control, 72 h	57.98±1.87	13.53±0.60	15.34±0.54	7.14±0.58
FX 150, 48 h	56.99±0.49	12.32±1.01	12.68±0.73	7.73±0.40
FX 150, 72 h	57.32±2.95	12.49±0.35	15.58±0.93	7.93±0.81
FX 250, 48 h	58.21±0.62	10.83±0.79	14.75±0.46	8.35±0.27
FX 250, 72 h	56.76±3.14	11.68±0.38	15.60±0.59	8.29±0.31
FX 300, 48 h	56.70±1.45	8.19±0.94	16.64±0.34	9.41±0.40
FX 300, 72 h	58.83±0.52	11.63±0.53	15.51±0.52	9.03±0.71
GEM 25, 48 h	56.59±1.87	11.63±1.10	13.25±0.07	13.36±0.16
GEM 25, 72 h	57.39±3.13	12.00±0.94	13.91±0.83	14.33±0.85
25+150, 48 h	56.26±2.12	12.37±0.29	14.68±0.42	12.04±0.03
25+150, 72 h	57.00±0.49	12.82±0.56	14.17±0.93	13.33±0.85
25+250, 48 h	57.24±3.23	9.70±1.13	14.55±0.73	12.52±0.01
25+250, 72 h	57.82±1.96	11.92±0.34	15.64±0.92	10.44±0.52
25+300, 48 h	56.56±0.55	4.89±0.14	14.24±0.19	12.51±0.45
25+300, 72 h	57.44±1.98	12.17±0.93	15.73±1.38	9.88±0.17
GEM 50, 48 h	11.06±1.04	10.21±0.88	49.43±1.68	25.28±0.11
GEM 50, 72 h	-	-	-	38.57±0.52
50+150, 48 h	10.26±0.98	9.40±0.33	49.42±0.67	24.97±0.95
50+150, 72 h	-	-	-	35.60±1.05
50+250, 48 h	9.23±0.72	13.05±0.77	49.64±0.24	24.90±0.30
50+250, 72 h	-	-	-	36.42±0.47
50+300, 48 h	7.98±0.77	12.19±0.91	50.34±0.16	24.60±0.28
50+300, 72 h	-	-	-	35.36±0.52
FX 10 µM, 48 h	55.72±1.22	16.59±0.90	12.67±0.44	11.35±0.19
FX 10 µM, 72 h	57.33±4.90	16.15±0.17	9.46±1.71	13.51±0.95

Cells treated with gemcitabine, fucoxanthin or a combination of the two drugs were harvested, stained with propidium iodide and analysed at 48 and 72 h. Data represent the percentage of each phase (%) after 48 h of treatment and 72 h of treatment and are expressed as the mean ± SD (n=3). GEM, gemcitabine; FX, fucoxanthin.