

**Table S1:** Evaluation of the therapeutic effect for each dose after combination of gemcitabine treatment with photon irradiation. We abbreviated every single dose as RT(dose1)ChT(dose2) : Dose 1 shows the radiation dose and dose 2 the gemcitabine dose.

<b>AsPC-1</b>	RT2ChT10	independent
	RT4ChT10	independent
	RT6ChT10	independent
	RT2ChT50	additive
	RT4ChT50	additive
	RT6ChT50	independent
<b>BxPC-3</b>	RT2ChT10	independent
	RT4ChT10	additive
	RT6ChT10	independent
	RT2ChT50	additive
	RT4ChT50	additive
	RT6ChT50	additive
<b>Panc-1</b>	RT2ChT10	independent
	RT4ChT10	independent
	RT6ChT10	independent
	RT2ChT50	independent
	RT4ChT50	independent
	RT6ChT50	independent

**Table S2:** Evaluation of the therapeutic effect for each dose after combination of gemcitabine treatment with helium ion irradiation. We abbreviated every single dose as He(dose1)ChT(dose2) : Dose 1 shows the helium ion radiation dose and dose 2 the gemcitabine dose.

<b>AsPC-1</b>	He1ChT10	additive
	He2ChT10	additive
	He3ChT10	independent
	He1ChT50	additive
	He2ChT50	additive
	He3ChT50	independent
<b>BxPC-3</b>	He1ChT10	additive
	He2ChT10	additive
	He3ChT10	additive
	He1ChT50	additive
	He2ChT50	additive
	He3ChT50	additive
<b>Panc-1</b>	He1ChT10	independent
	He2ChT10	independent
	He3ChT10	independent
	He1ChT50	additive
	He2ChT50	additive
	He3ChT50	additive