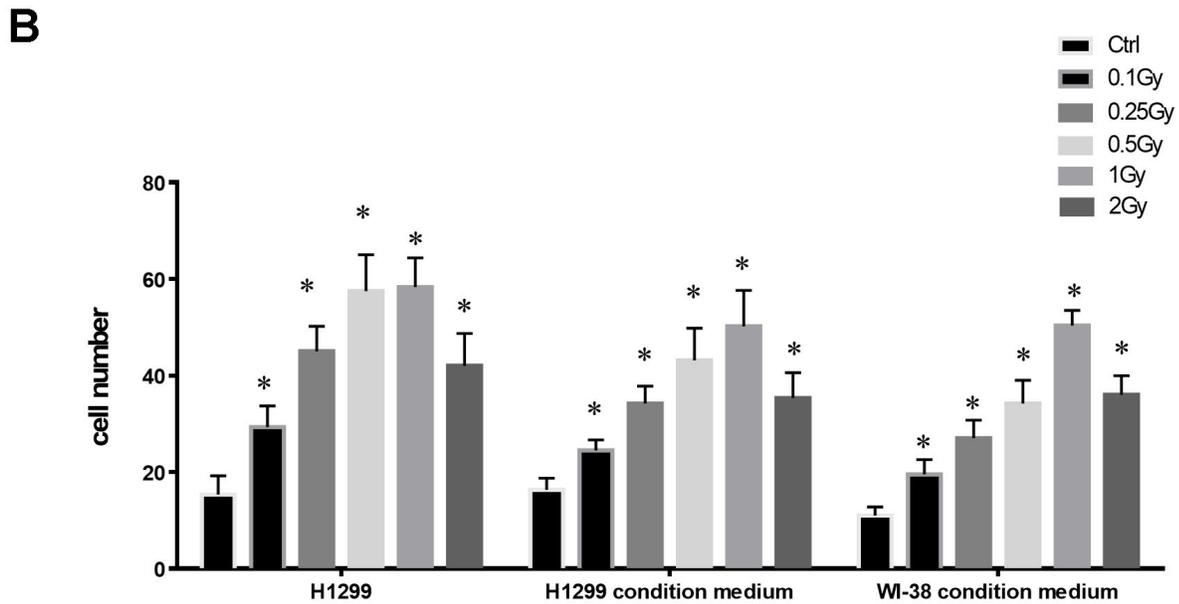
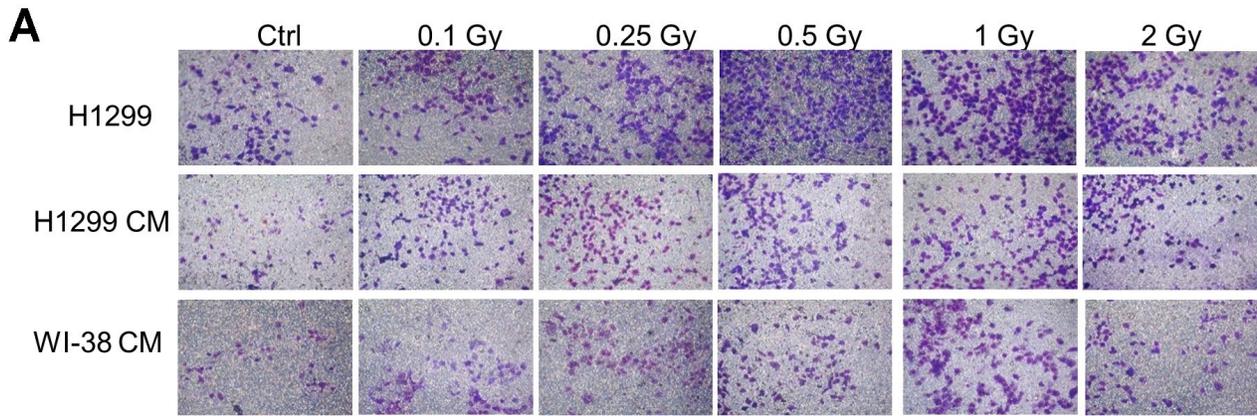
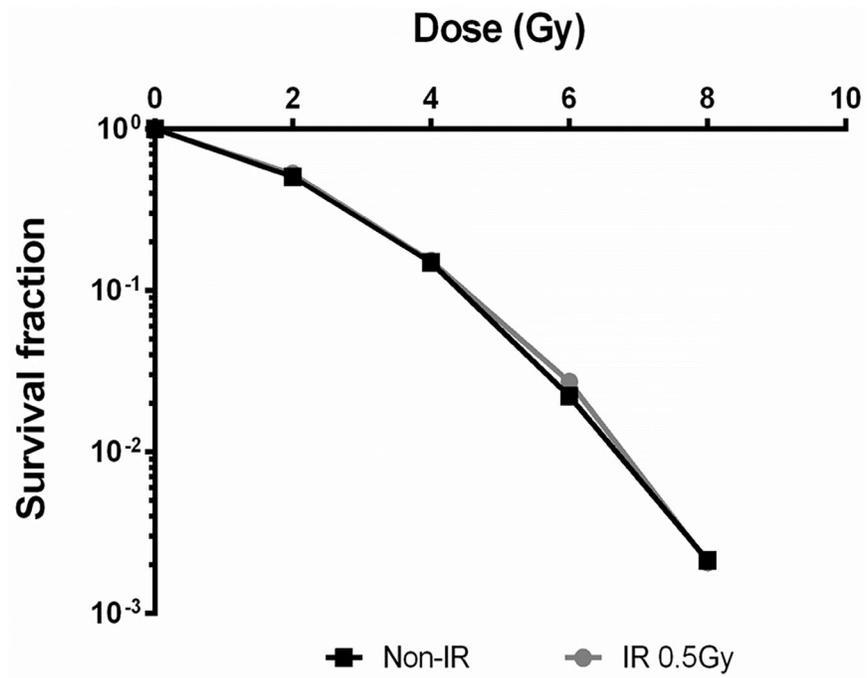


SUPPLEMENTARY FIGURES



Supplementary Figure 1. *In vitro* invasion assay. (A) H1299 cells were either irradiated by different doses of X-rays, or treated with conditioned medium (CM) of irradiated H1299 cells or irradiated WI-38 cells. (B) Quantification of the number of cells transverse matrigel coated transwells at different conditions. * $p < 0.05$ compared to ctrl.



Supplementary Figure 2. Colony formation assay for analysis of survival fractions of LDR (0.5Gy) pretreated H1299 cells or untreated cells exposed to 2 to 8 Gy of X-rays.

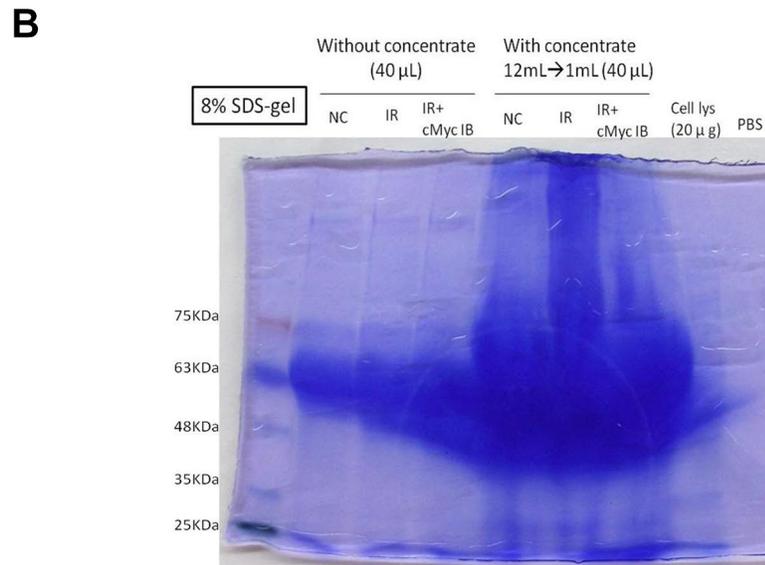
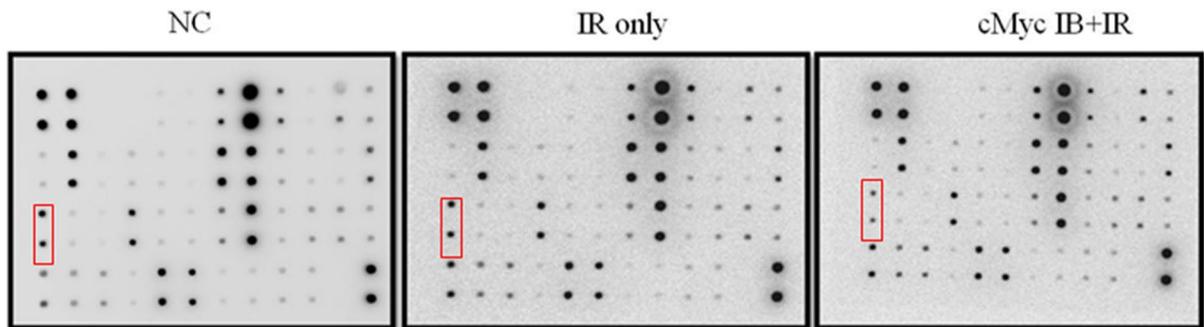
A

	a	b	c	d	e	f	g	h	i	j	k	l
1	Pos	Pos	Neg	Neg	ENA-78	GCSF	GM-CSF	GRO	GRO- α	I-309	IL-1 α	IL-1 β
2	Pos	Pos	Neg	Neg	ENA-78	GCSF	GM-CSF	GRO	GRO- α	I-309	IL-1 α	IL-1 β
3	IL-2	IL-3	IL-4	IL-5	IL-6	IL-7	IL-8	IL-10	IL-12 p40p70	IL-13	IL-15	IFN- γ
4	IL-2	IL-3	IL-4	IL-5	IL-6	IL-7	IL-8	IL-10	IL-12 p40p70	IL-13	IL-15	IFN- γ
5	MCP-1	MCP-2	MCP-3	MCSF	MDC	MIG	MIP-1 δ	RANTES	SCF	SDF-1	TARC	TGF- β 1
6	MCP-1	MCP-2	MCP-3	MCSF	MDC	MIG	MIP-1 δ	RANTES	SCF	SDF-1	TARC	TGF- β 1
7	TNF- α	TNF- β	EGF	IGF-I	Angiogenin	Oncostatin M	Thrombopoietin	VEGF	PDGF BB	Leptin	Neg	Pos
8	TNF- α	TNF- β	EGF	IGF-I	Angiogenin	Oncostatin M	Thrombopoietin	VEGF	PDGF BB	Leptin	Neg	Pos

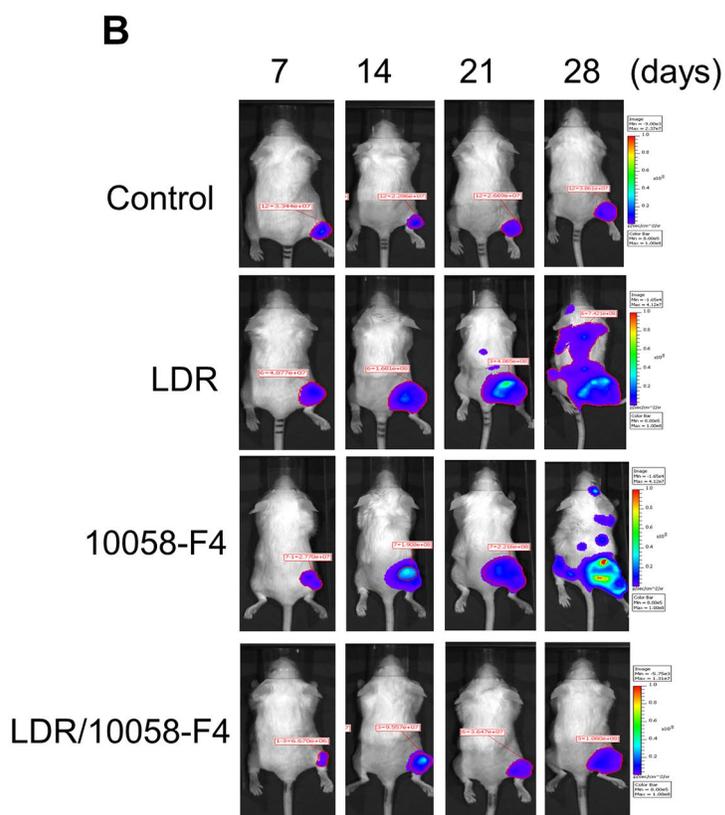
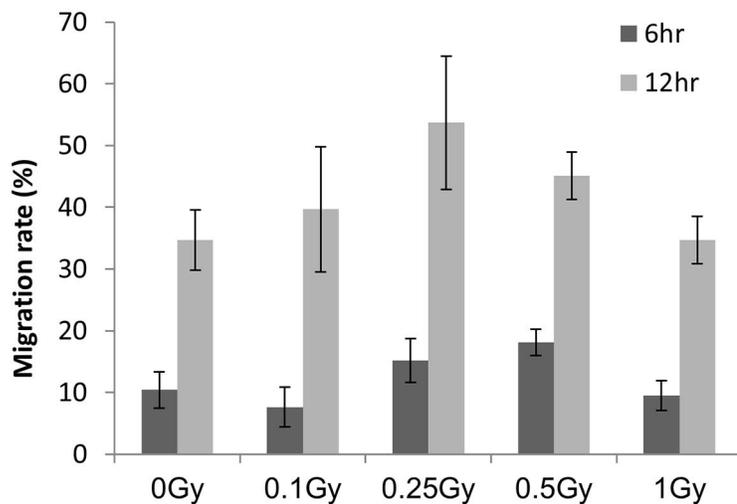
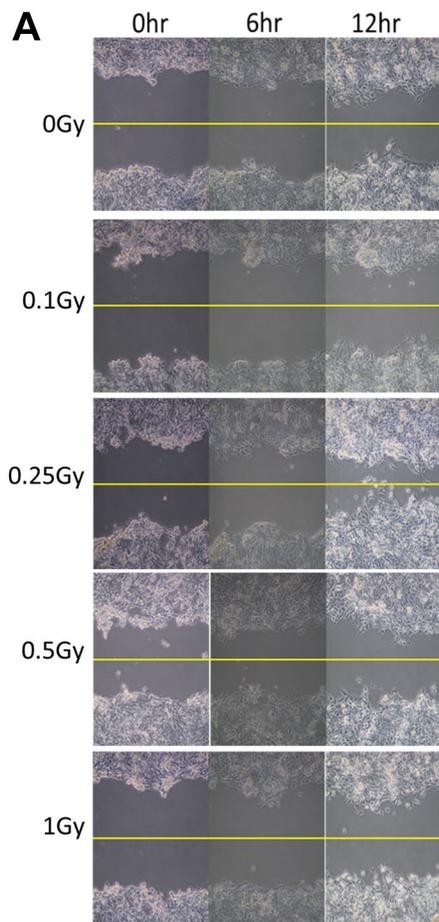
Note: GRO detects CXCL1, CXCL2, CXCL3; GRO- α detects only CXCL1

Note: IL-12 p40p70 detects both IL-12 p40 and IL-12 p70

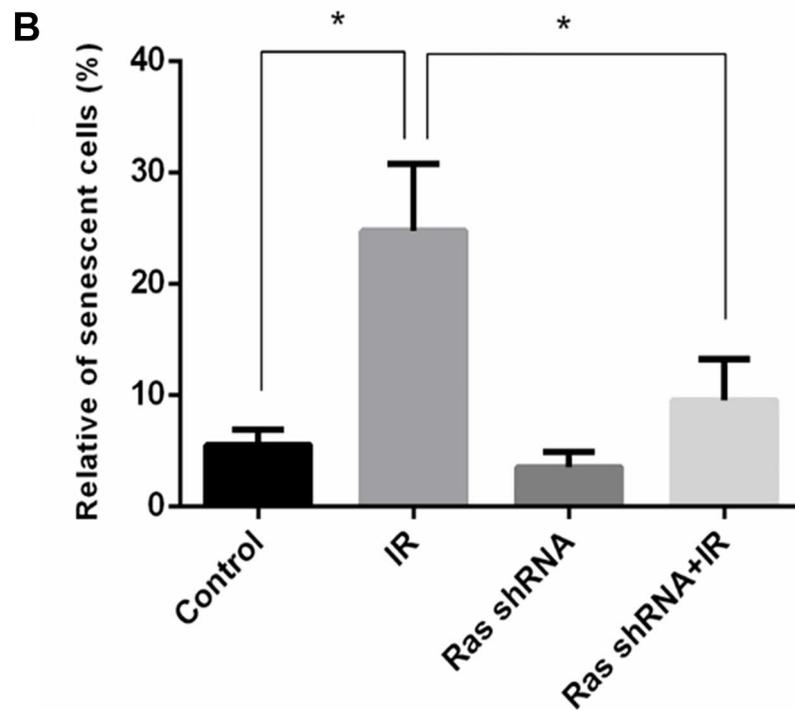
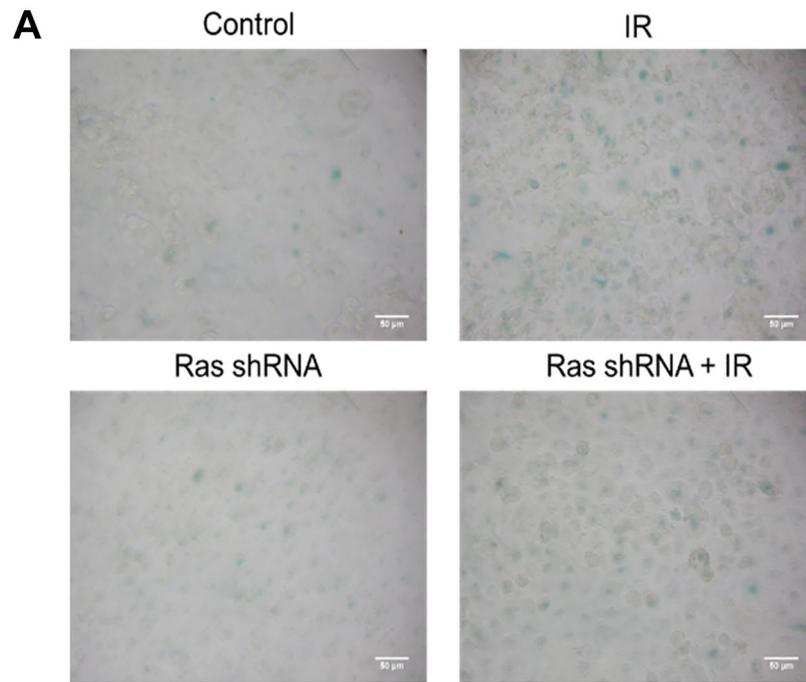
Note: VEGF detects VEGF-165 and VEGF-121



Supplementary Figure 3. Cytokine array analysis of irradiated CM. (A) Cytokine array was used to detect the cytokines released in CM (0.5Gy irradiated) with or without c-Myc inhibitor (Myc IB, 50 μ m) treatment. (B) SDS-PAGE with Coomassie blue staining of ICM with or without spin concentration.



Supplementary Figure 4. Effects of LDR on 4T1-3R murine breast cancer generated syngeneic tumor model. (A) Wound healing assay for analysis of 4T1-3R cell migration after exposure to LDR. **(B)** Time course dependent *in vivo* bioluminescent imaging for detecting the tumor metastasis after LDR and/or 10058-F4 (25 mg/kg) treatment in the syngeneic tumor model.



Supplementary Figure 5. Knockdown of K-Ras suppressed LDR induced cell senescence. (A) SA- β -gal staining in H1299 cells treated with Ras shRNA and/or 0.5Gy of X-rays. **(B)** Quantification of SA- β -gal staining. * $p < 0.05$.