Supplemental figure 1: Local irradiation enhances recruitment of TAMs and MDSCs to tumors in RM-9 model. Subcutaneous RM-9 tumors were irradiated with 3Gy for 5 days after tumors reach 4mm in diameter. Tumors were measured by caliper daily. Control mice and treated mice were sacrificed at day 13 when control tumors reached 1.5cm in diameter. Tumors were collected, processed to single cell suspension and assayed by FACS for CD11b+Gr-1+ MDSCs and CD11b+F4/80+ TAMs. A) Immunohistochemistry staining for F4/80. B) Immunohistochemistry staining for Gr-1.

Supplemental figure 2: Local irradiation enhances recruitment of TAMs to tumors in Myc-CaP model. A: growth curve of Myc-CaP tumors with 3Gy for 5 days after tumors reach 4mm in diameter by day 14. Tumors were measured by caliper every other day. Mice were sacrificed at day 34 when control tumors reached 1.5cm in diameter. Tumors were collected, processed to single cell suspension and assayed by FACS for CD11b+F4/80+ TAMs. A) Growth curve of Myc-CaP tumors with or without irradiation. B) FACS plots and quantification for TAMs in the tumors.

Supplemental figure 3: Irradiation increases CSF1 expression in other human and murine cancer cell lines. A: CSF1 expression from CWR cells collected 2, 4, 8, and 24hrs after radiation. B-H): Cells were seeded in 6-well overnight, and collected 24hrs after irradiation (3Gy). CSF1 expression was analyzed by RT-PCR.

Supplemental figure 4: ABL1 mediates CSF1 expression in other human prostate cancer cell lines. A) Human prostate cancer cells CWR were treated with irradiation and STI-571 (5μM) as indicated. Cells were collected 24hrs after and analyzed by RT-PCR for CSF1 expression. B) Human prostate cancer LNCaP cells was transfected with empty vector control (EV, pcDNA) or pcDNA-Abl (wild-type), and cells were collected 24hrs after transfection for RT-PCR analysis.

Supplemental figure 5: CSF1/CSF1R blockade by GW2580 inhibits tumor growth after irradiation. A: Growth curve of subcutaneous RM-1 tumors treated with irradiation (3Gy x 5 days) or GW2580 (160mg/kg) in combined with irradiation. Tumors were measured daily by caliper. B-C: FACS analysis of TAMs and MDSCs in tumor. D-F: mRNA expression of CSF1, Arg1 and CCL2 in tumor collected at end point and assayed by RT-PCR.