

# Macrophage resistance to ionizing radiation exposure is accompanied by decreased Cathepsin D and increased Transferrin receptor 1 expression

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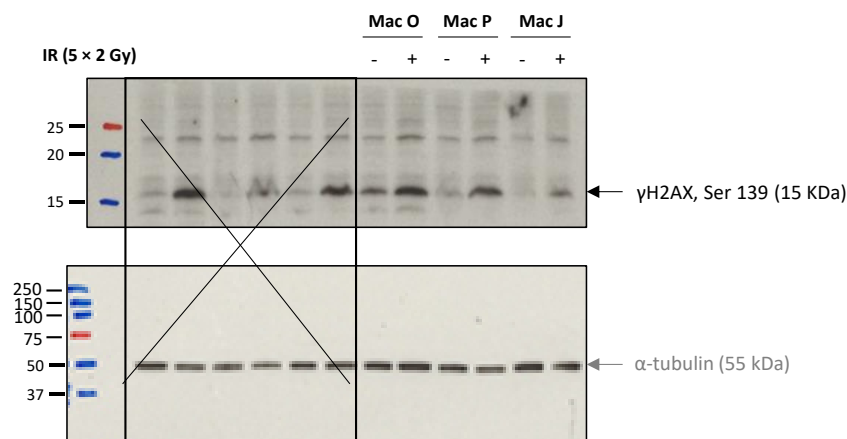
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# Supplementary Figures



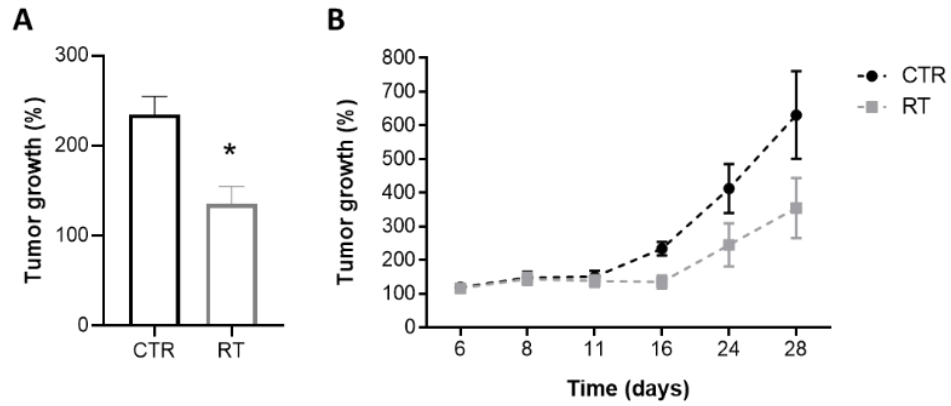
**Figure S1** – Chemiluminescent/scanned images derived from immunoblotting of macrophages nuclear extracts for γH2AX (Ser 139) 40 min after exposure to 5 x 2 Gy IR doses. Loading control: α-tubulin.



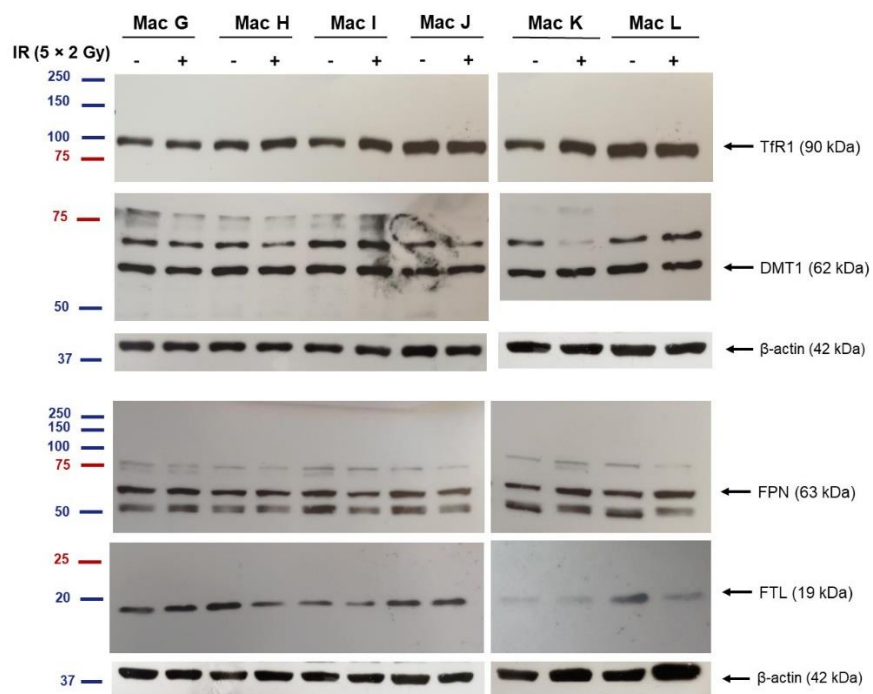
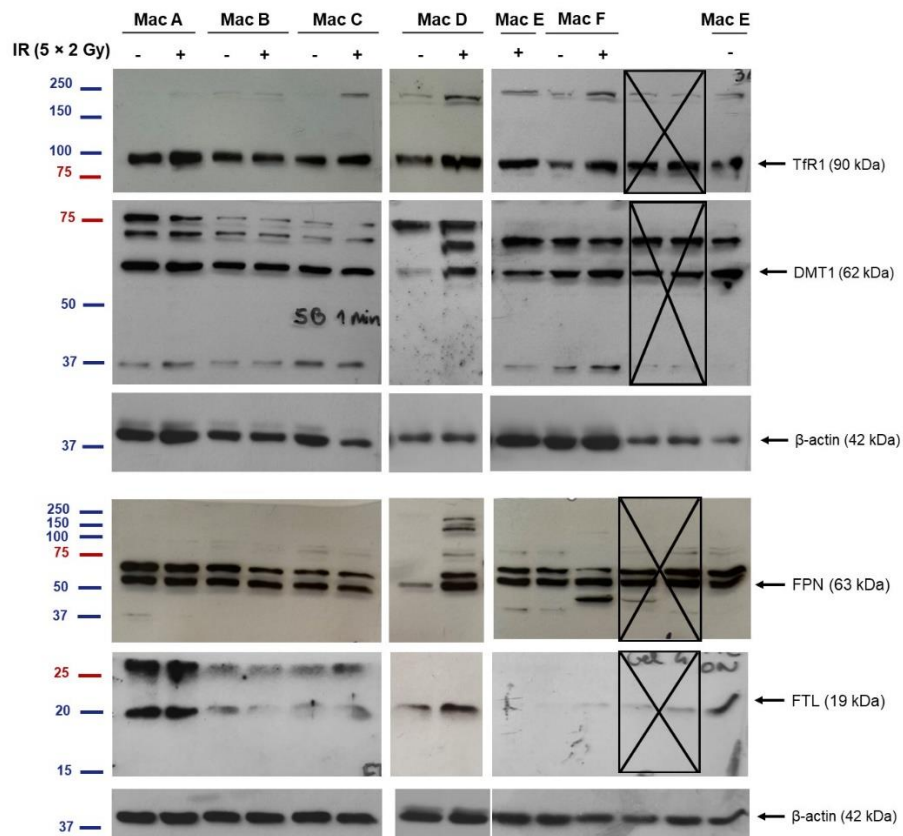
**Figure S2 - Gene Ontology analysis of the proteins differentially expressed between irradiated (5 × 2 Gy) and non-irradiated macrophages.** Data obtained from GProfile (on October 22, 2022). MF: Molecular Function; BP: Biological Process; CC: Cellular Component; WP: WikiPathways. Meaning of the different colors used:



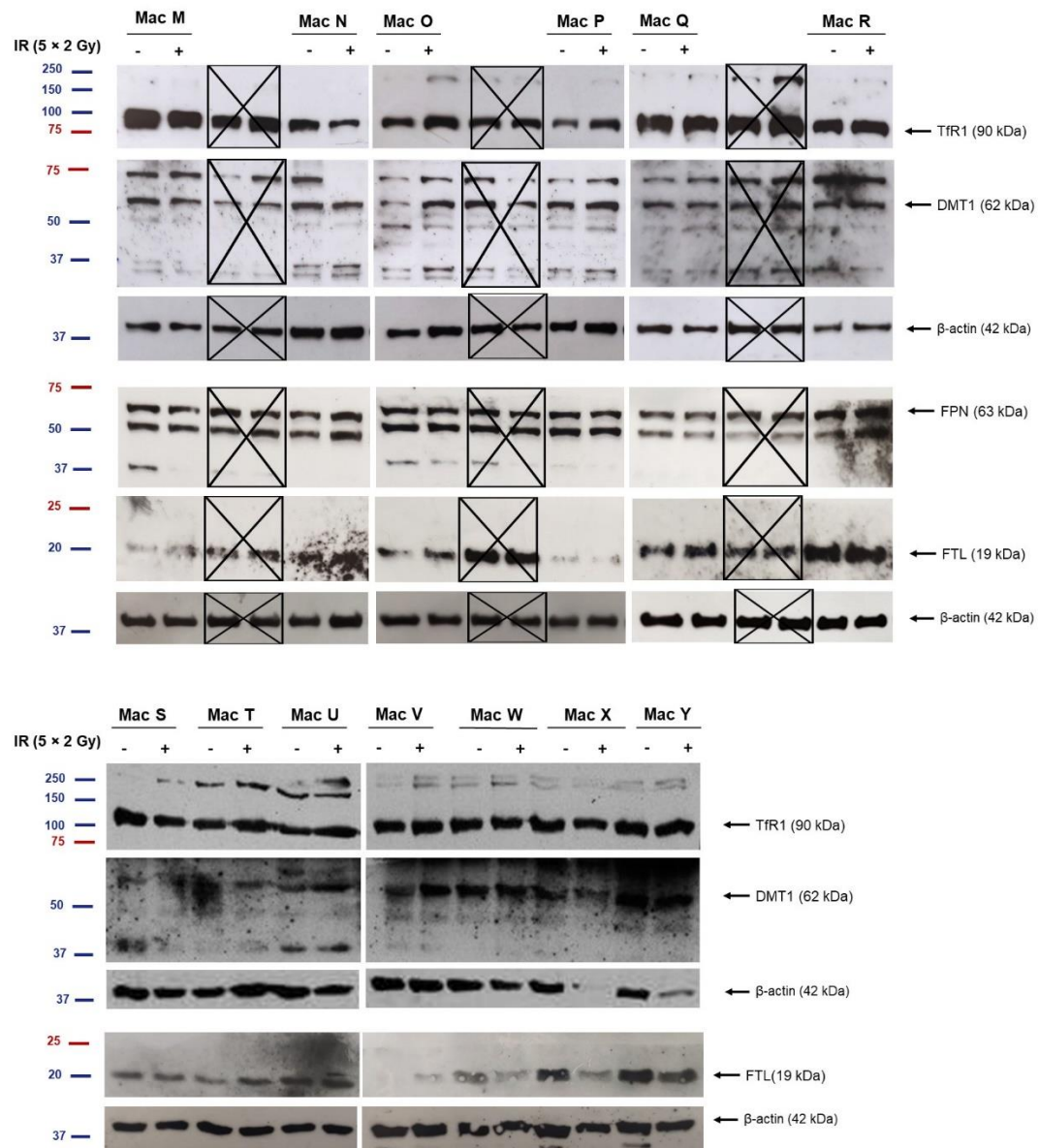




**Figure S5** – Radiotherapy ( $2 \times 5$  Gy) significantly reduced relative tumor growth in 4T1 mouse breast tumor model. The relative (%) tumor growth was calculated based on the normalization of tumor volume ( $\text{mm}^3$ ) at certain time-point to the initial tumor volume for each animal. Graphs depict tumor growth in irradiated animals (RT) (A) at 6 days after irradiation (d16 post-4T1 injection) and (B) tumor progression 4T1 injection until the end of the experiment, when compared with non-irradiated animals (CTR). Data show the mean  $\pm$  SEM. Statistical analysis was performed using two-way ANOVA, Sidak's multiple comparison test, according to [37].







**Figure S6** – Chemiluminescent/scanned images derived from immunoblotting of macrophages whole-cell lysates for TfR1, DMT1, FPN and FTL after exposure to  $5 \times 2$  Gy IR doses. Data were obtained from 5 independent irradiation experiments ( $n = 17-24$  macrophage donors, Mac A-Y). Loading control:  $\beta$ -actin.