Supplementary Information

Theranostic nanoparticles enhance the response of glioblastomas to radiation.

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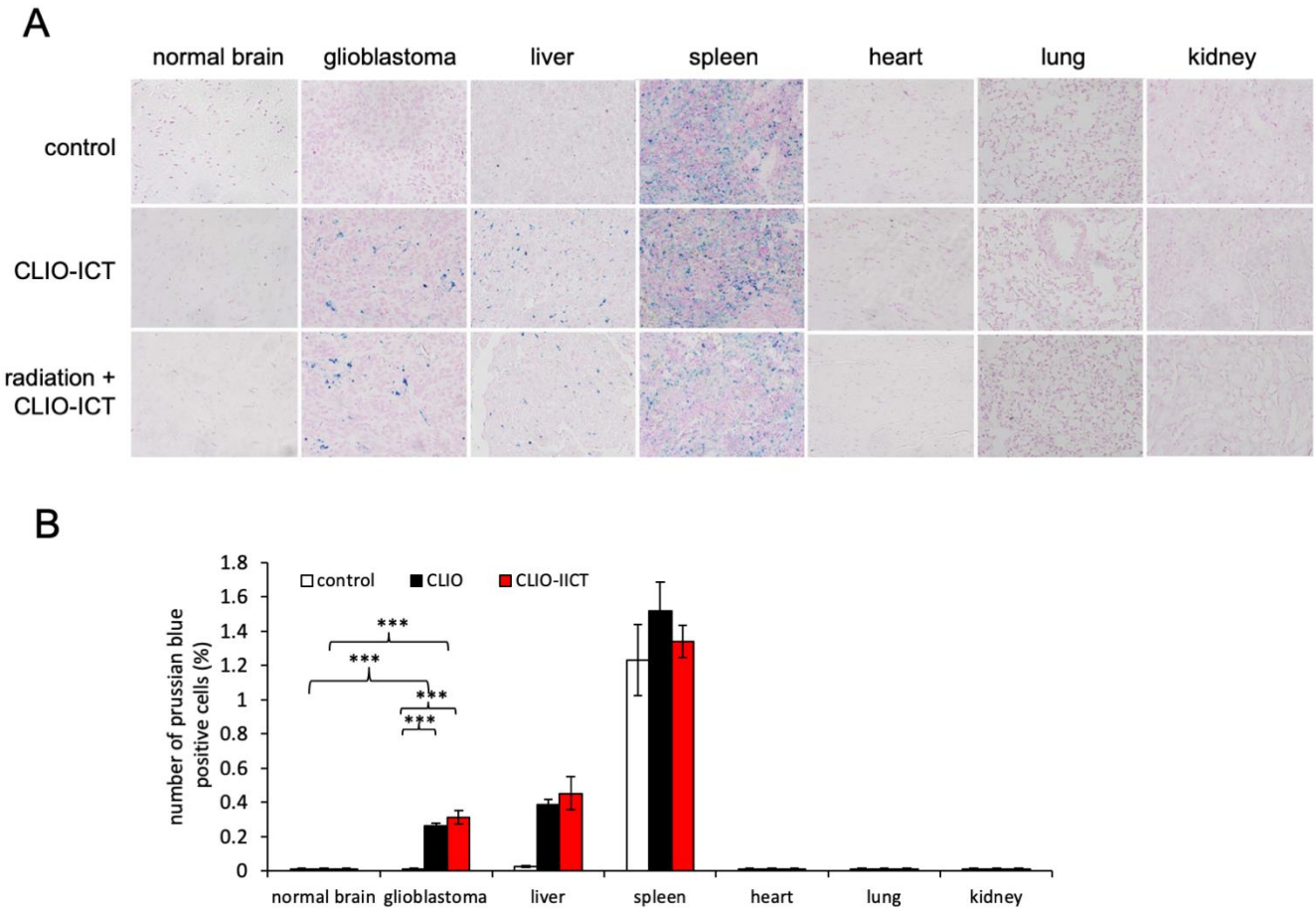

Figure S1: Prussian blue staining. (A) Prussian blue staining of tissues from NSG™ mice in three different treatment cohorts (PBS, CLIO-ICT, or radiation + CLIO-ICT). (B) Quantification of Prussian blue staining showing a significant increase in uptake in the glioblastoma compared to healthy brain. Three “hot spots” from each slide were identified and were photographed (40X). The blue dots and total number of cells were counted with Image-J in a blindfolded manner and were estimated as a total of number of Prussian blue positive cells per 100 cells (%) ± SD in three different fields from three independent experiments.

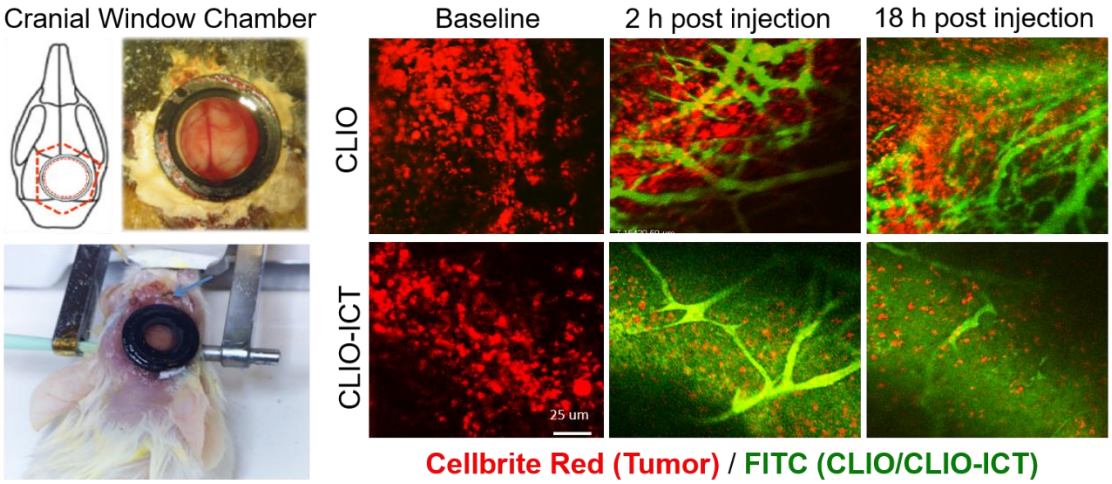

Figure S2: Intravital microscopy of CLIO and CLIO-ICT-treated mouse. An NSG™ mouse bearing a GBM39 tumor was fitted with an intracranial window chamber. The mouse was treated with either CLIO or CLIO-ICT. Time-lapse images were acquired at 2 and 18 h post-injection to study the TNP accumulation and vascular alteration at tumor site. TNPs are labeled with FITC (green fluorescence) and tumors are labeled with Cellbrite Red (red fluorescence).

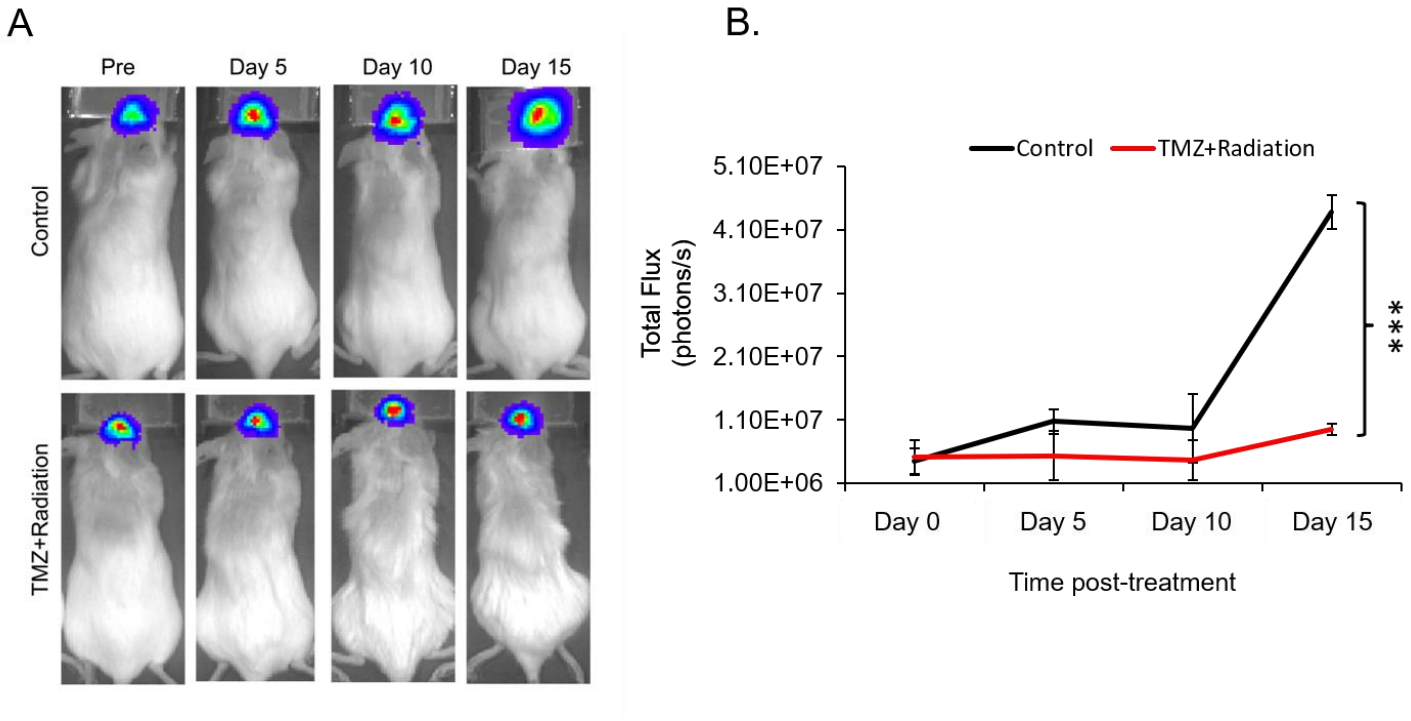

Figure S3. Treatment efficacy of standard of care therapy compared to control. (A) BLI of NSG™ mice that were treated with either PBS or temozolomide (TMZ) and radiation (10 Gy). (B) Graphical representation of tumor size using total photon flux at various time points post-treatment. A significant difference was noted in tumor size between the two treatment groups. (***$p < 0.001$)

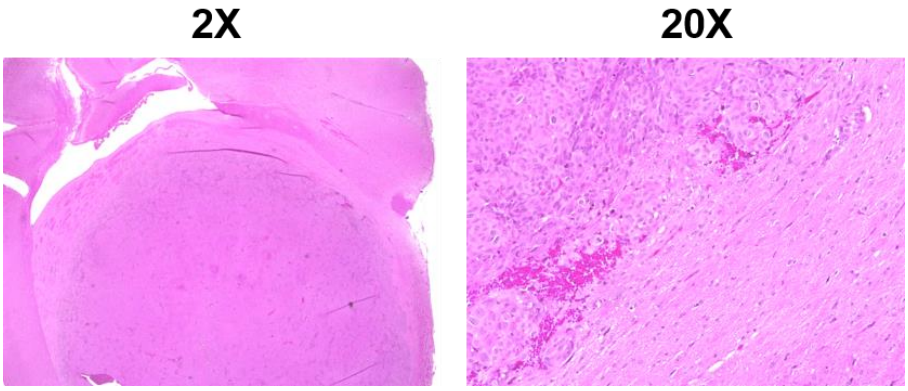

Figure S4. H&E staining of GBM in mouse brain. Staining at two different magnifications shows hyperplasia, a key characteristic of glioblastomas.