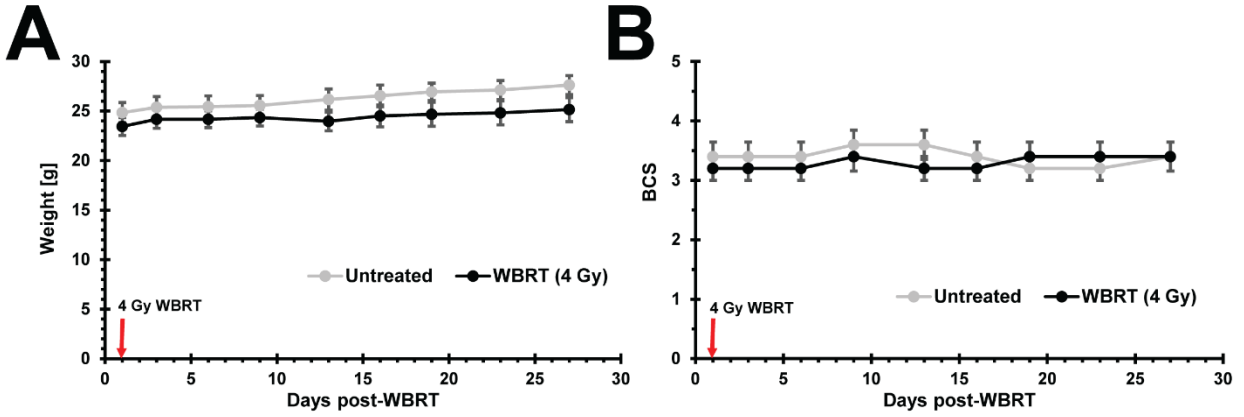


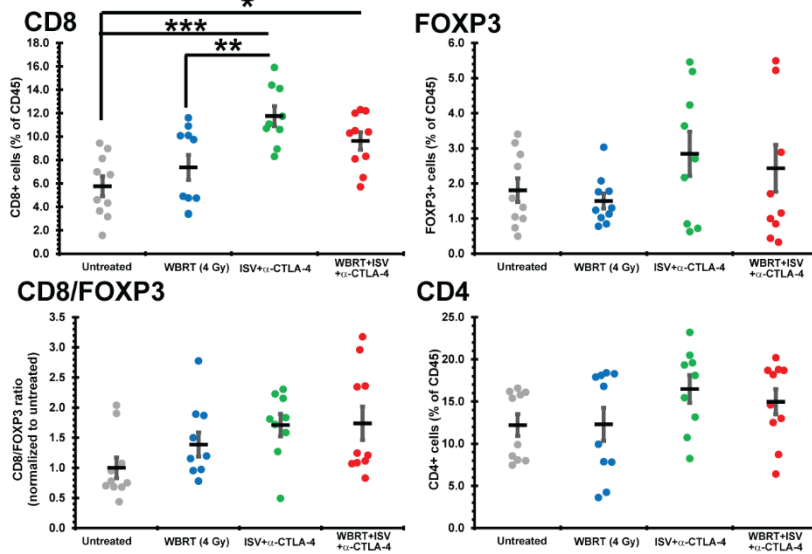
	coef	exp(coef)	se(coef)	z	Pr(> z)
ISV(Yes)	-0.55	0.57	0.45	-1.22	0.22
WBRT(D1)	-0.82	0.43	0.43	-1.88	0.059
WBRT(D15)	-0.38	0.68	0.42	-0.89	0.37
ISV:WBRT(D1)	-0.22	0.799	0.64	-0.34	0.73
ISV:WBRT(D15)	-2.05	0.12	0.72	-2.82	0.0047**

Supplementary Table S1: Results from Cox regression model (** $p < 0.01$, which indicates that the significant effect of the interaction effect between ISV and WBRT (D15)).

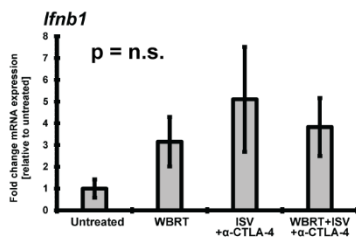


Supplementary Figure S1: Mouse weight (**A**) and Body Condition Score (BCS, **B**) were monitored to determine toxicity up to 4 weeks after receiving whole brain radiotherapy (WBRT, 4 Gy×1) or sham control.

A Flow cytometry

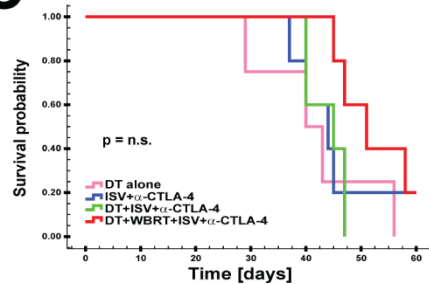


B qPCR



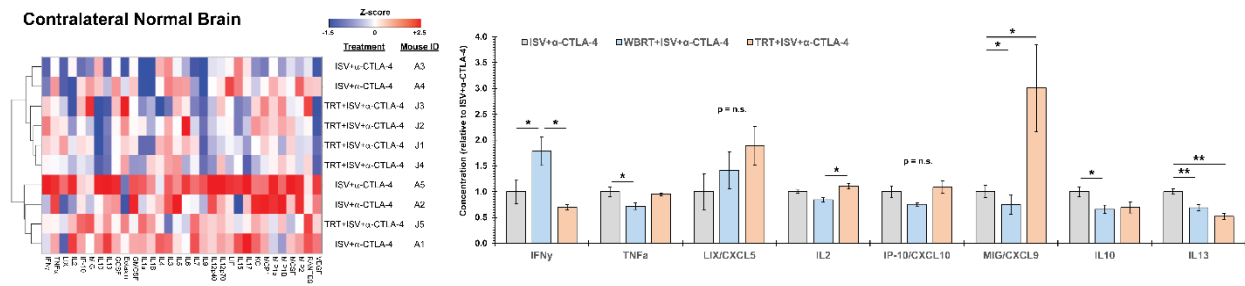
C

Survival: Treg depletion ('DEREG' mice)



Supplementary Figure S2: (A) Flow cytometric analysis of B78 tumors after WBRT + ISV + anti-CTLA-4 treatment compared to untreated and single treatment controls (** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, mean \pm S.E. with marker representing individual data points, ANOVA with post-hoc Bonferroni, $n \geq 9$, at least 2 independent animal experiments). (B) qRT-PCR analysis for expression of gene *Ifnb1* in melanoma brain tumors at 5 days after WBRT + ISV + anti-CTLA-4, compared to single treatments and untreated controls ($p = n.s.$, shown as fold-change increase from untreated controls, mean \pm S.E., ANOVA with post-hoc Bonferroni, $n \geq 8$ in at least 2 independent animal experiments). (C) Survival curve for 'DEREG' mice receiving diphtheria toxin (DT) to deplete Tregs and treatment controls ($p = n.s.$, Kaplan-Meier, $n \geq 5$ in a single animal experiment).

Contralateral Normal Brain



Supplementary Figure S3: Heatmap of cytokines/ chemokines analyzed via multiplex immunoassay for contralateral normal brain in BrMet-bearing mice treated with TRT ⁹⁰Y-NM600 with and without ISV + anti-CTLA-4 regimen (z-scores; n=5 mice in a single animal experiment). Concentrations of cytokines/ chemokines in mice treated with TRT ⁹⁰Y-NM600 or WBRT with ISV + anti-CTLA-4 regimen, graphed relative to ISV + anti-CTLA-4 regimen alone (**p<0.01, *p<0.05, mean±S.E., ANOVA with post-hoc Bonferroni, n=5 in a single animal experiment).