

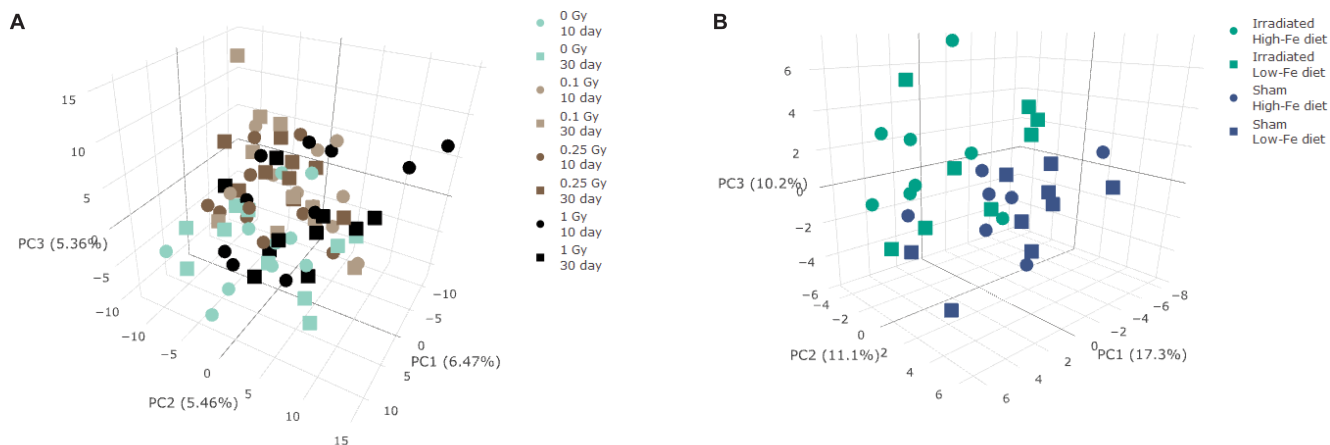


Figure S2. Radiation-induced changes in the community structure of gut microbiome in rodents. Beta diversity analyses of the two publically available datasets were performed using PCA on ILR-transformed relative abundance data at the species level. **(A)** Exposure to high-LET radiation (600 MeV/n ^{16}O) at various doses altered the community structure of the gut microbiome in mice 10 or 30 days after the exposure ($n = 10$ in each group) [7]. Significant effects of time ($P = 0.018$, PERMANOVA) and dose ($P < 0.0001$, PERMANOVA) were observed. **(B)** Exposing rats to low-LET radiation (^{137}Cs fractionated radiation at 0.375 Gy every other day, totaling at 3 Gy) induced a shift in the gut microbiome community structure ($P = 0.0029$, PERMANOVA) [5]. A diet-by-radiation interaction effect was also observed ($P = 0.033$, PERMANOVA). Sample sizes: sham/Normal-Fe, $n = 9$; irradiated/Normal-Fe, $n = 8$; sham/High-Fe, $n = 7$; irradiated/High-Fe, $n = 8$.