Supplemental Figure 1. Summary of Animal Features

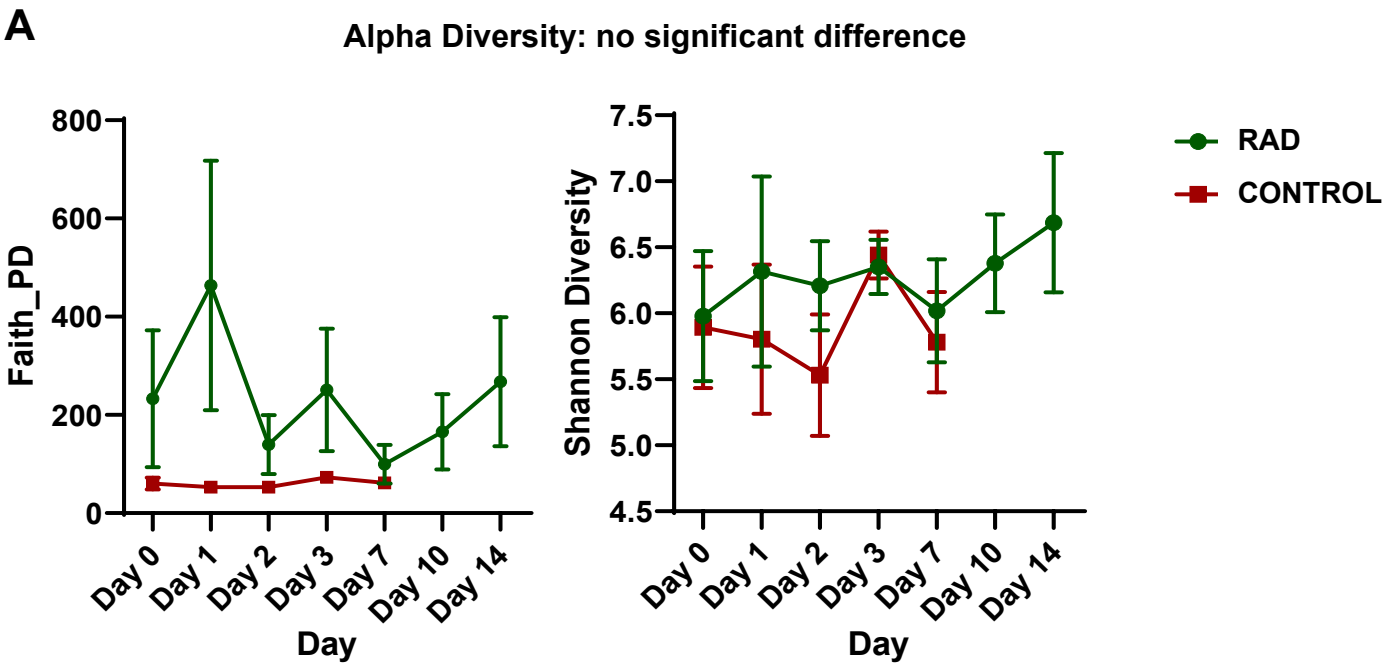
Weight, temperature, and condition of swine in RAD and CONTROL groups were tracked daily.

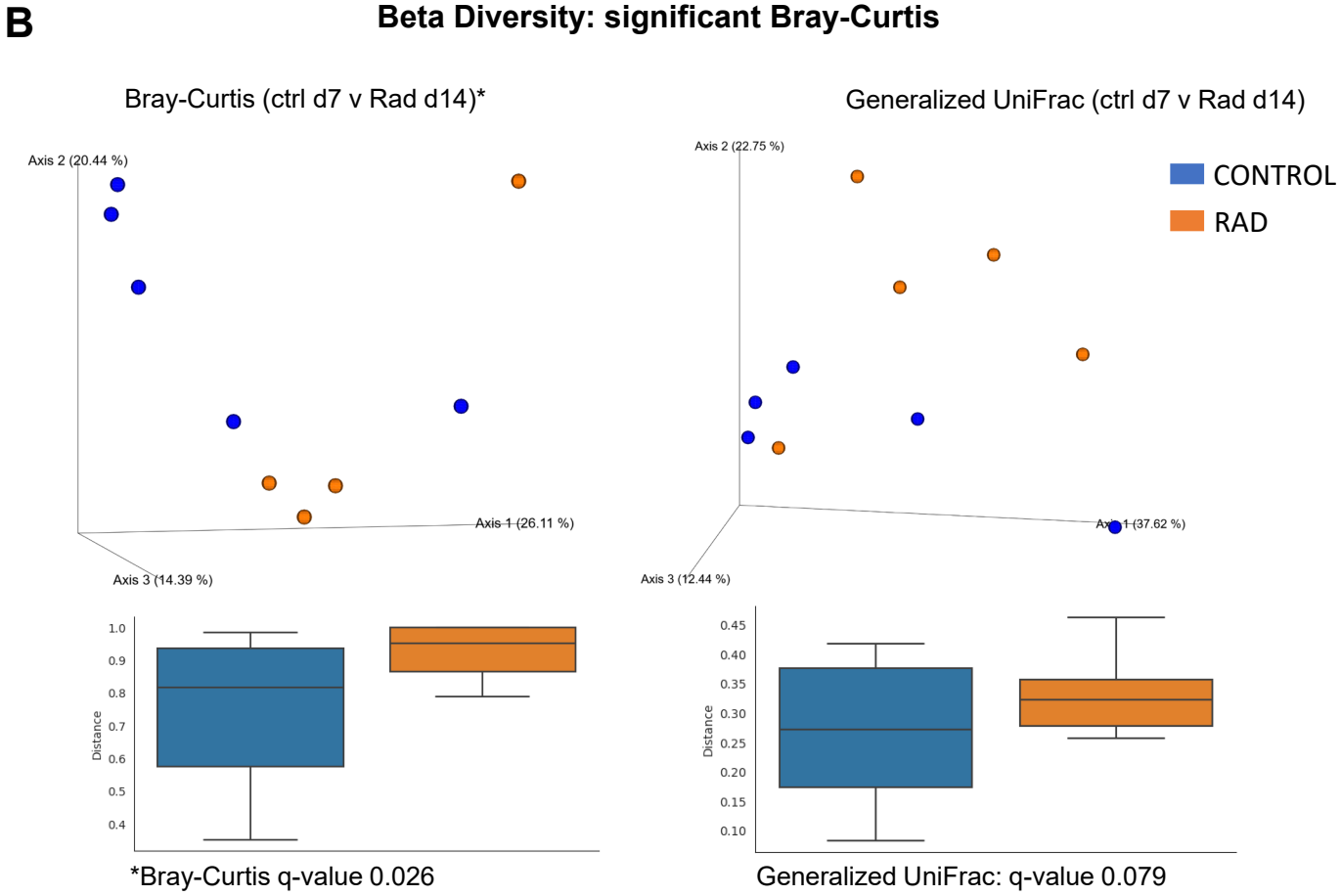
		Weight (kg)						
	Animal ID	Day 0	Day 1	Day 2	Day 3	Day 7	Day 10	Day 14
CONTROL	25031	26.6	26.6	27.6	26.1	27.6		
	25034	30.15	29.8	29.6	31.3	31.5		
	25048	27.2	25.7	25.7	27.2	28.9		
	25189	29.5	28.6	28.7	29.9	28.3		
	25200	25.85	25.5	25.6	26.6	29.5		
	25246	28.3	28.4	28.1	28.9	28.6		
RAD	25197	26.7	26.9	26.9	27.5	24.5	25.7	25.9
	25198	27.4	26.2	26.1	27.7	28.6	27.8	28.2
	4640	22.9	22.4	22.5	22	21.6	22.1	20
	4718	22.8	23.2	23	23.3	20.4	21.3	20.4
	4740	17.5	17.6	18		16.5	17.6	17.9
	4894	18.5	17.3	17.9	17.2	17.8	18.3	17.8

		Temperature (C)						
	Animal ID	Day 0	Day 1	Day 2	Day 3	Day 7	Day 10	Day 14
CONTROL	25031	36.9	38.6	38.7	37.9	37.5		
	25034		37.7	37.7	37.7	37.7		
	25048		38.3	38.5	39	37.5		
	25189		35	38.8	39.2	38.3		
	25200		38.9	38.6	38.5	38.5		
	25246	36.9	39.3	39	38.8	38.7		
RAD	25197		36.1	38.2	37.5	38.3	38.5	37.5
	25198		37.8	38.1	38.1	38.2	37.7	37.1
	4640		37.6	37.6	37.5	36.9	37.9	35.8
	4718	38.6	37.9	38.7	37.7	38.3	37.3	35.6
	4740		35.8	37.8	38.2	37.8	36.7	36.4
	4894		38.3	38.9	39.2	39.3	38.9	37.5

		Condition						
	Animal ID	Day 0	Day 1	Day 2	Day 3	Day 7	Day 10	Day 14
CONTROL	25031	wound redness / swelling						
	25034	wound redness / swelling		Diarhea	Eating / playing			
	25048	vomiting, wound redness / swelling						
	25189			loose stool				
	25200	blood in stool, overactive, wound redness / swelling						
	25246	wound redness / swelling						
RAD	25197	vomiting, wound redness / swelling. low energy		diarhea, low energy		reduced appetite		
	25198	wound redness / swelling		diarhea	diarhea	reduced appetite		
	4640			diarhea	diarhea, decreased appetite, low energy	soft stool		
	4718					loose stool	diarhea	
	4740			low energy, loose stool, reduced appetite	loose stool			
	4894	Vomiting	Soft stool		diarhea, reduced appetite			

Supplemental Figure 2. Gut microbiota community diversity after 8 Gy GI irradiation.
(A) Shannon and Faith's Phylogenetic alpha diversity (not significant, mean ± SEM). (B) Principle Coordinate Analyses (PCoA) show significant difference in beta diversity determined by Bray-Curtis (q=0.026) but not by generalized UniFrac (q=0.079). RAD n=5, CONTROL n=6





*Bray-Curtis q-value 0.026

Generalized UniFrac: q-value 0.079

Supplemental Figure 3. Preliminary checks following proteomic analyses in RAD vs. CONTROL swine FCtx. Protein quality and consistency was appropriate for proteomic analysis, as evidenced by the protein abundances across samples (A). PCA of proteomic profiles shows mixed clustering of RAD (orange) vs. CONTROL (blue) FCtx protein expression (B), further demonstrated by the heat map of expression pattern clustering (C), where green indicates low and red indicates high differential protein abundance. Hierarchal clustering of samples. Z-score transformation of normalized protein abundances from a quantitative proteomics analysis using isobaric mass tags was applied before performing the hierarchical clustering based on Euclidean distance and complete (furthest neighbors) linkage. The horizontal dendogram shows the proteins in samples that clustered together. RAD n=6, CONTROL n=6.

