Supplemental Table: Model Fit Parameters. Parameter averages were used to generate EUD and E (3 patient response categories from Table 3), and E (patient averages not split into categories).

Subject	Tumor	Average Dose (Gy)	α (Gy^{-1})	λ_p (g$_T$/mg$_p$/hr)	3 Response Categories EUD (Gy) E		Patient Specific E	Notes
1	Pelvis	1.57	0.2	0.0	1.13	0.25	0.22	
2	Paraaortic	2.73	0.19	0.0	2.28	0.51	0.42	
3	Inguinal	2.48	0.8	0.139	3.61	1.17	1.93	
	Iliac	2.30	0.1	0.198	3.28	1.07	1.77	
4	Pelvis big	4.34	.23	0.0	3.79	0.84	0.87	
	Pelvis small	4.30	.23	0.0	3.73	0.83	0.86	
5	Renal	3.54	0.52	0.028	4.16	1.35	1.47	
	L ParaAortic	3.14	0.4	0.099	3.78	1.23	1.33	
	Central	3.44	0.25	0.023	4.55	1.48	1.56	
	Hepatic	3.66	0.4	0.058	4.47	1.45	1.57	
	Crux	3.17	0.35	0.087	3.89	1.26	1.36	
6	L iliac	3.87	0.53	0.107	6.50	2.11	3.17	
	Paraaortic	3.85	0.05	0.099	6.16	2.00	3.00	$
7	R inguinal up	2.21	0.43	0.050	3.23	1.05	1.04	#
	R inguinal big	2.61	0.28	0.017	4.01	1.30	1.30	#,$

	R inguinal small	1.09	0.8	0.069	1.41	0.46	0.47	#
	L inguinal up	2.07	0.12	0.087	3.50	1.14	1.10	#
	L inguinal big	2.60	0.34	0.058	3.90	1.27	1.26	#,$
	L inguinal small	1.91	0.45	0.050	3.02	0.98	0.95	#,$
8	R inguinal lateral	1.71	2.2	0.014	1.62	2.13	2.13	#
	R inguinal medial	3.62	0.45	0.046	3.65	4.82	4.82	#
	R iliac	3.41	0.96	0.023	3.17	4.19	4.19	#
	R aortic	3.64	0.35	0.050	3.08	4.06	4.06	#
	R anterior acetab.	3.71	2.2	0.005	2.97	3.92	3.92	#
	R posterior acetab.	3.80	1.9	0.005	3.70	4.89	4.89	#
	L acetabulum	4.20	1.2	0.035	4.21	5.57	5.57	#
9	R inguinal	1.13	0.6	0.173	1.74	0.56	0.84	
	L inguinal	1.02	0.42	0.116	1.47	0.48	0.71	
	L iliac	1.24	0.06	0.154	1.92	0.63	0.93	
10	R anterior iliac	4.13	0.2	0.058	4.95	1.61	1.15	
	R posterior iliac	4.03	0.2	0.099	4.97	1.62	1.14	
	R inguinal	3.58	0.25	0.046	4.00	1.30	0.95	
11	L kidney up	5.75	0.2	0.0	5.37	1.19	0.70	$
	L kidney down	5.65	0.15	0.0	5.11	1.14	0.67	

	R psoas	5.66	0.06	0.0	5.43	1.21	0.72	
12	Para vertebral	2.45	0.3	0.035	3.23	1.05	0.78	#
13	Hilar spleen	3.91	0.4	0.069	5.47	1.77	1.43	
	L dph	3.00	0.3	0.099	3.75	1.22	0.97	
	L paraaortic	3.06	0.28	0.046	3.95	1.28	1.03	
	L psoas	2.49	0.28	0.050	3.16	1.03	0.82	
	R dph down	3.03	0.1	0.099	3.87	1.26	1.01	
	R dph up	2.96	0.35	0.046	3.72	1.21	0.97	
	R paraaortic	3.26	0.15	0.046	4.05	1.32	1.06	
14	L neck up	2.15	0.27	0.0	1.73	0.38	0.57	
	L neck mid	2.94	0.11	0.0	2.50	0.56	0.81	
	L neck down	3.52	0.55	0.0	3.09	0.69	0.99	
15	Central	4.55	0.2	0.0	4.13	0.92	0.82	#,$
16	Abdominal	1.96	0.29	0.0	1.51	0.34	0.47	
18	Lung	2.39	0.4	0.347	3.48	1.13	2.38	#,*
19	L neck	4.08	0.16	0.028	7.14	2.32	0.90	
20	L iliac	3.41	0.15	0.063	5.64	1.83	0.72	
	L inguinal inferior	3.77	0.15	0.055	5.81	1.89	0.79	
	R iliac	7.11	0.1	0.012	8.91	2.90	1.38	

R inguinal inferior	5.53	0.1	0.023	8.11	2.64	1.21
R inguinal lateral	3.64	0.05	0.058	5.00	1.63	0.70
R inguinal medial	5.31	0.15	0.063	9.15	2.98	1.35
R inguinal superior	2.95	0.05	0.126	4.48	1.46	0.63

\# Radiation inactivated tumor cell clearance delay not used (t_d =0) \$ First tumor volume ignored for tumor size normalization

* Cell clearance parameter decreased (T_c = 1.5 d)