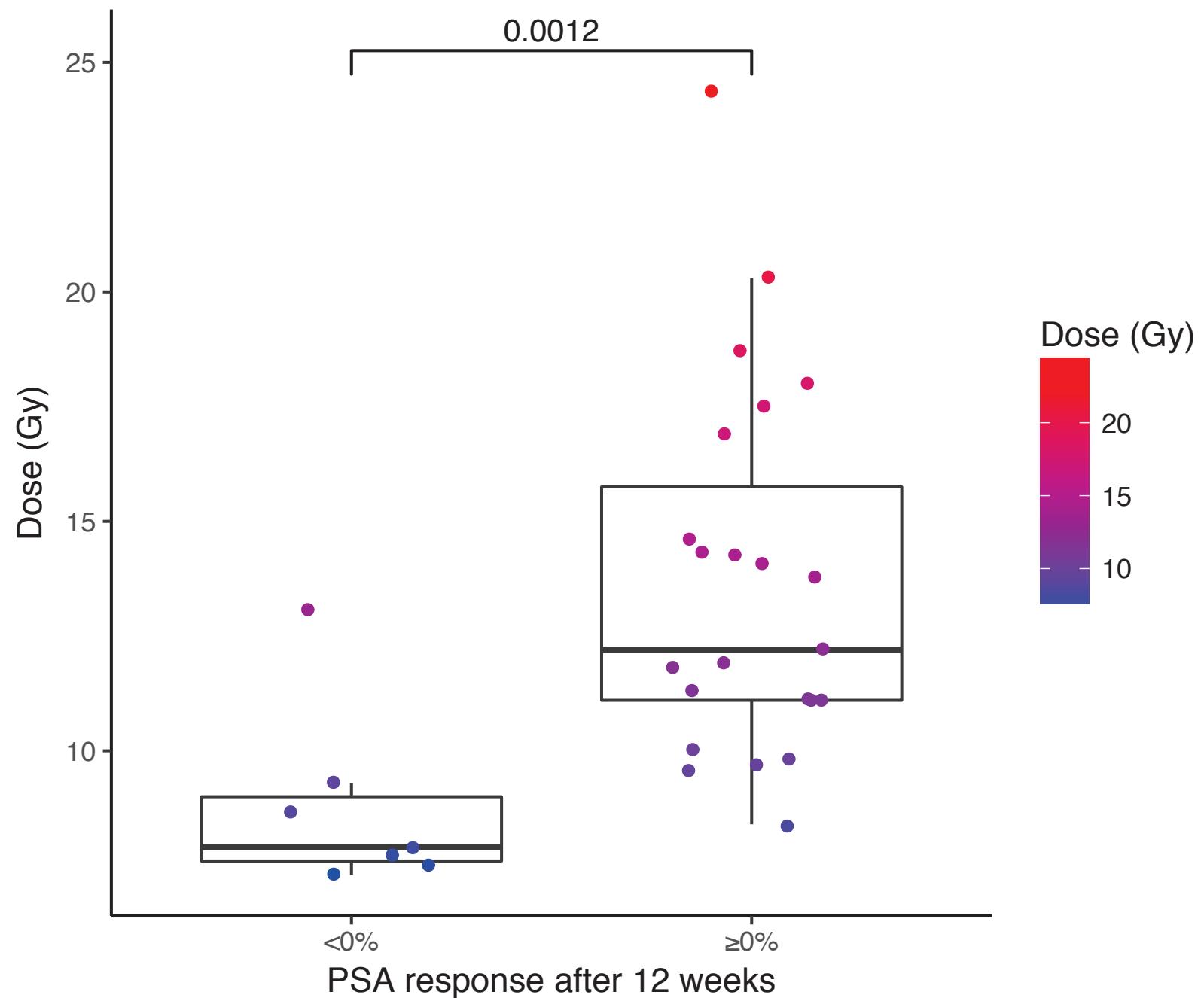
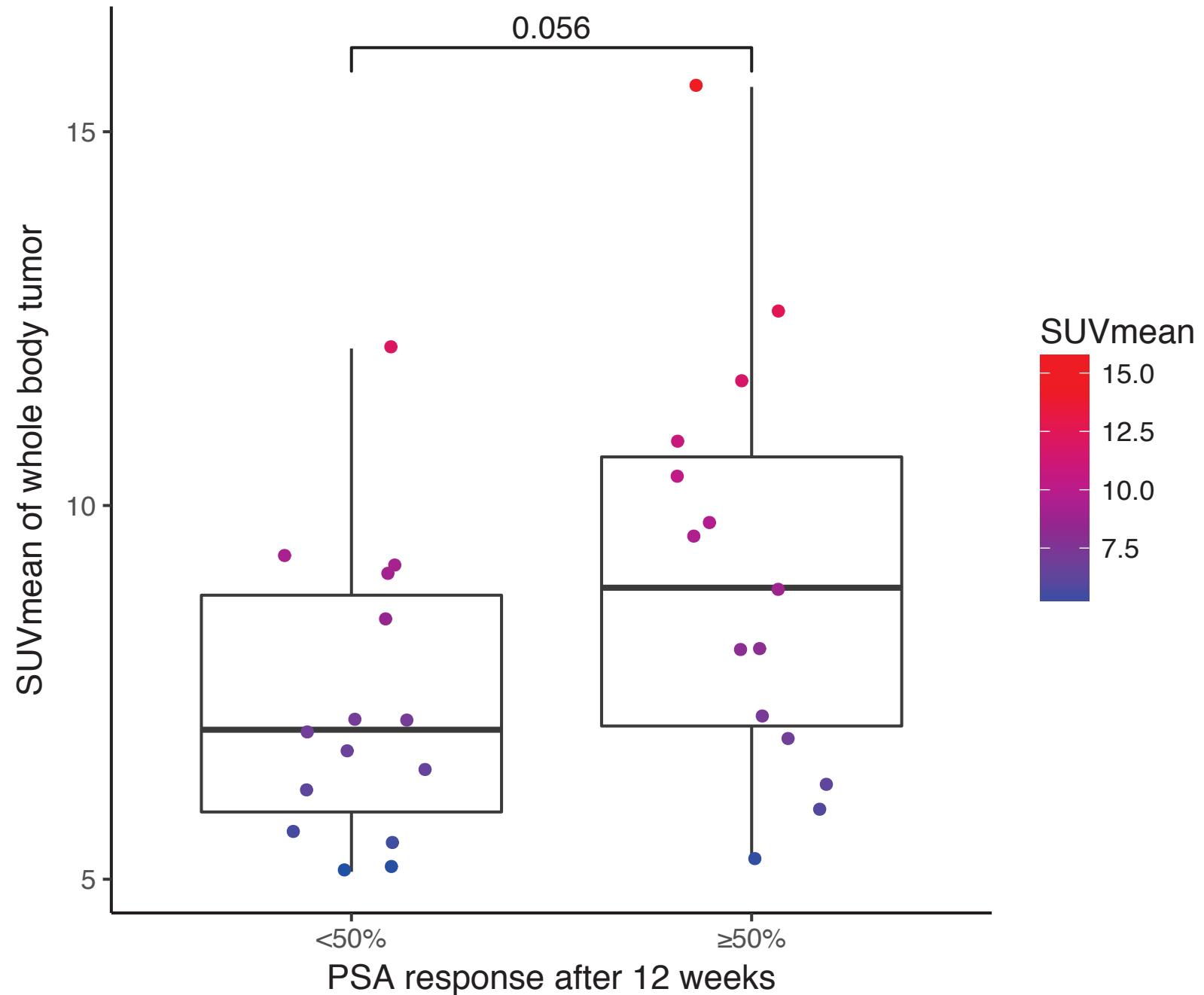


Supplemental Figure 1





Supplemental Appendix 1. Patient baseline characteristics and administered activity

Patient number	Age	Gleason score	PSA	Patient weight (Kg)	Disease sites			No of disease sites	Administered activity (GBq)
					Bone	Node	Viscera		
1	75	4+5	1676	80	+	+		>20	8.3
2	72	4+3	14.9	76	+	+		>20	7.4
3	62	3+4	3187	104	+	+	+	>20	8.3
4	65	3+4	380	93	+	+		>20	8.0
5	77	-	967	73	+	+		>20	8.4
6	54	4+3	86	92	+	+		>20	8.4
7	74	4+5	84	108	+			<10	7.3
8	62	4+4	56	82	+	+		>20	8.5
9	71	3+4	4022	81	+			>20	7.3
10	78	4+5	60	102	+	+		>20	8.3
11	72	-	119	108	+	+		>20	8.0
12	69	4+5	1015	88	+			>20	7.1
13	70	3+4	198	81	+	+	+	>20	6.5
14	72	5+3	289	67	+	+	+	>20	6.5
15	76	-	1131	94	+	+		>20	7.6
16	86	3+4	327	90	+	+		>20	8.2
17	50	4+5	936	102	+	+		>20	8.0
18	69	4+5	94	67	+	+		>20	6.6
19	61	3+4	79	111	+	+		>20	8.7
20	79	4+3	333	80	+	+		>20	6.9
21	76	5+5	127	69	+	+	+	>20	7.6
22	69	3+5	280	94	+	+		>20	8.3
23	81	4+5	20	80	+			>20	8.7
24	69	5+4	181	137	+			>20	8.1
25	71	-	334	71	+	+		>20	7.3
26	71	3+4	164	101	+			>20	7.6
27	66	4+4	44	88	+	+	+	>20	8.5
28	70	4+5	13	72	+			>20	8.0
29	67	4+3	14	128		+		10-20	5.7
30	67	3+3	348	62	+	+		>20	8.4

Supplemental Appendix 2. Imaging and dosimetric techniques used to estimate dose with ^{177}Lu labeled small molecules binding PSMA (Absorbed doses in Gy/MBq).

Reference	Imaging method	Dose convolution	Conversion factor (S factor)	Marrow dosimetry	Kidneys	Salivary tissues	Lacrimal glands	Liver	Bone Marrow
Kabasakal et al 2015	Whole body planar scintigraphy	MIRD	Standard man adjusted for mass and spherical model	Blood sampling	0.76	1.66 (Parotid)	-	1.47	0.025
Delker et al 2016	Whole body planar Scintigraphy + SPECT-CT	MIRD	Standard man adjusted for mass and spherical model	Blood sampling	0.6 (left), 0.61 (right)	1.41	-	0.29	0.012
Okamoto et al 2016	Whole body planar scintigraphy	MIRD	Standard man adjusted for mass and spherical model	Imaging	0.72	0.55 (Parotid), 0.64 (Submandibular)	3.81	0.11	-
Hohburg et al 2016	Whole body planar scintigraphy	MIRD	Standard man and spherical model	Not evaluated	0.53	0.72	2.82	0.12	-
Yadav et al 2017	Whole body planar scintigraphy	MIRD	Standard man and spherical model	Not evaluated	0.99	1.24 (Parotid Submandibular)	-	-	0.048
Fendler et al 2017	SPECT-CT	MIRD	Standard man and spherical model	Blood sampling	0.5 (left), 0.6 (right)	1.0	-	0.36	0.002
Current study	SPECT-CT	Voxel-based technique and MIRD	Spherical model	Imaging	0.39	0.58 (Parotid), 0.44 (Submandibular)	0.36	0.10	0.11