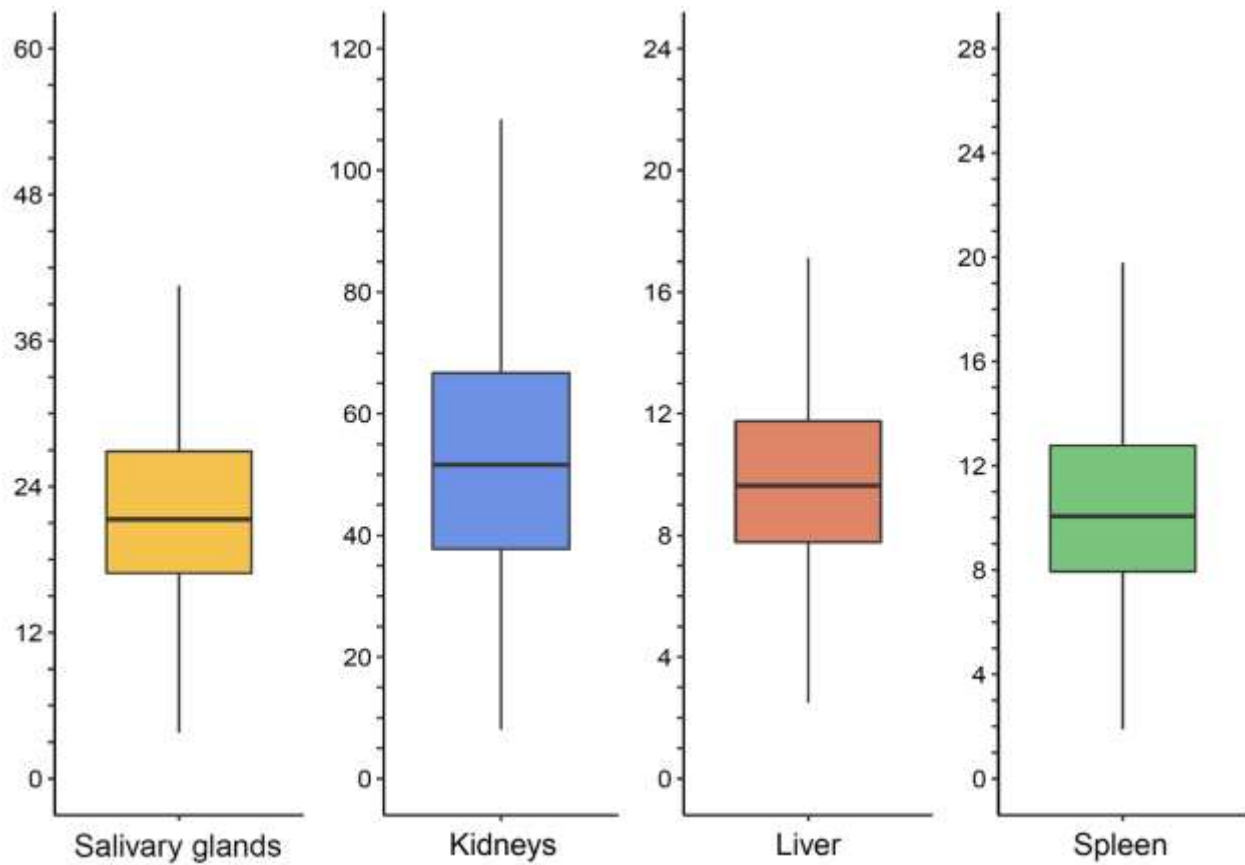
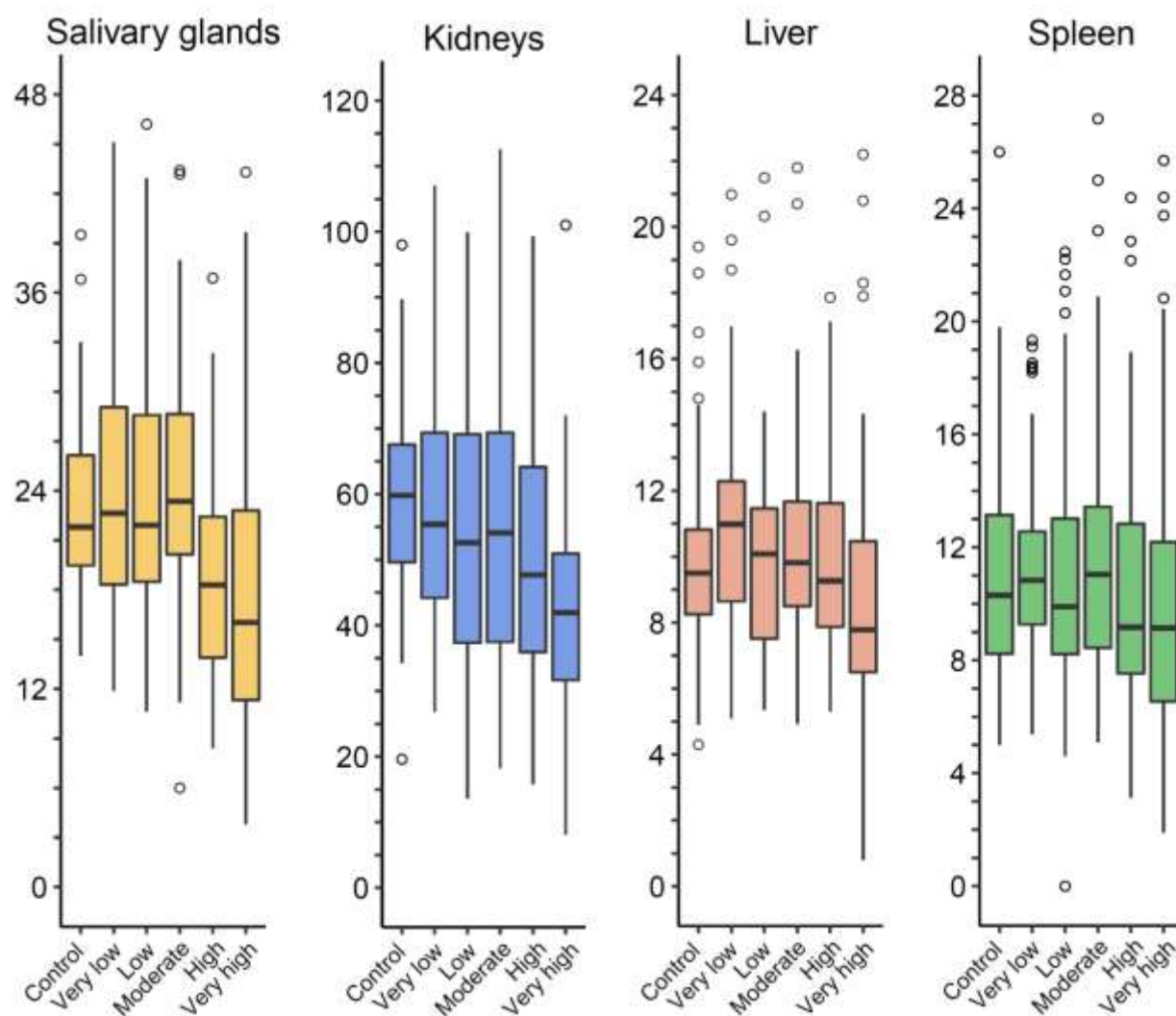


Supplemental Figure 1. SUV_{max} of normal organs divided by tumor load groups. Horizontal lines represent the median value.



Supplemental Figure 2. SUV_{max} of normal organs stratified by tumor load.



No. Pts.	Center	PET/CT system	Tracer	Matrix Size	Reconstruction algorithm	Point-Spread-Functions	Pixel size (mm)	EANM/SNMMI Guideline
N=124	TUM	Siemens, Biograph mCT	⁶⁸ Ga-PSMA	200x200	PSF-TOF (3i, 21s)	Yes	4.06x4.06	Yes
N=92	UCLA	Siemens, Biograph 64	⁶⁸ Ga-PSMA	200x200	OSEM3D (2i, 24s)	No	4.06x4.06	Yes
N=88	UKE	Siemens, Biograph mCT	⁶⁸ Ga-PSMA	200x200	PSF-TOF (3i, 21s)	Yes	4.06x4.06	Yes
N=50	PMCC	General Electric, Discovery 710	⁶⁸ Ga-PSMA	192x192	VPFXS	Yes	2.9x2.9	Yes
N=32	UKH	Siemens, Biograph mCT	⁶⁸ Ga-PSMA	200x200	PSF-TOF (2i, 21s)	Yes	4.06x4.06	Yes
N=20	EDNOC	Siemens, Biograph 16	⁶⁸ Ga-PSMA	168x168	OSEM3D (2i, 24s)	No	4.06x4.06	Yes

Supplemental Table 1. Overview of the applied reconstruction parameters.

Abbreviations: TUM, Technical University Munich; UKE, University Hospital Essen; PMCC, Peter MacCallum Cancer Center; UKH, University Hospital Heidelberg; EDNOC, Excel Diagnostics Nuclear Oncology Center; PSF, point-spread-function.

Subgroup	PSMA-VOL			NL	SUVmean								SUVmax							
					Salivary Glands		Kidneys		Liver		Spleen		Salivary Glands		Kidneys		Liver		Spleen	
	Bsl	%			Bsl	%	Bsl	%	Bsl	%	Bsl	%	Bsl	%	Bsl	%	Bsl	%	Bsl	%
PSMA-VOL decline ≥30%	2007	-65%	-		11.0	+15%	21.0	+12%	3.5	+103%	6.5	+11%	6.8	+85%	18.5	+455	5.2	+60%	6.1	+49%
	3716	-64%	-		6.9	+112%	13.2	+71%	1.2	+100%	2.8	+118%	32.4	+20%	71.6	+10%	9.6	+35%	12.8	+93%
	2038	-55%	-		14.2	+31%	28.9	+18%	3.2	+58%	4.0	+81%	19.4	-17%	26.7	+0%	8.8	+7%	9.4	+12%
	2136	-55%	-		8.6	+33%	20.7	-16%	2.9	+3%	3.5	+37%	27.6	-12%	57.0	-1%	13.9	+19%	13.0	+1%
	3305	-47%	-		3.8	+84%	10.7	+42%	2.5	+80%	3.5	+65%	35.7	+6%	72.0	+6%	10.7	+16%	12.0	+28%
	2323	-40%	-		7.7	-18%	10.4	+31%	1.8	+22%	4.2	+31%	19.3	-24%	49.2	-23%	-	-	16.0	-27%
	2483	-40%	-		4.4	+14%	19.9	-8%	-	-	8.5	-26%	3.8	+445%	8.1	+195%	1.5	+260%	1.9	+147%
	2004	-39%	-		10.6	+52%	31.2	+3%	3.5	+31%	6.0	+77%	18.3	+26%	43.4	-14%	6.8	+15%	9.3	+8%
	1432	-36%	+		7.8	+4%	35.2	-12%	5.3	+5%	5.4	+52%	14.8	+162%	23.5	+126%	6.3	+65	6.4	+72%
	4251	-31%	-		1.6	+294%	3.6	+219%	0.4	+275%	0.8	+175%	17.4	+5%	66.1	-12%	12.2	-95	11.6	+17%
PSMA-VOL decline <30%	3369	-28%	+		6.8	+7%	15.0	-7%	1.6	-17%	1.5	-22%	21.6	-21%	28.9	+7%	10.5	-62%	9.2	+2%
	2069	-25%	-		10.7	-3%	31.2	+17%	2.7	-4%	4.9	-22%	24.2	-49%	21.3	+23%	3.5	+40%	3.2	+74%
	1549	-18%	+		7.2	-18%	19.0	-3%	3.5	+43%	9.8	-15%	10.2	+34%	40.5	+16%	5.8	+84%	7.5	+33%
	2805	-3%	-		5.1	+19%	23.1	-7%	1.0	+32%	1.6	+39%	18.5	-37%	55.7	-23%	22.2	-48%	24.4	-39%
	2877	4%	+		8.3	-4%	11.2	-7%	2.4	-18%	5.7	+21%	9.5	+9%	46.0	-15%	4.2	+14%	4.0	+16%
	3027	8%	+		5.1	+10%	11.2	+33%	1.2	+23%	1.1	+168%	21.4	-39%	35.1	-15%	7.8	-46%	3.5	-22%
	1891	13%	+		9.2	-44%	21.1	+14%	6.1	-25%	12.0	-29%	11.0	-11%	55.6	+15%	4.8	-6%	3.5	+46%
	3108	14%	+		6.3	-9%	29.7	+16%	2.0	+39%	1.9	+71%	10.9	-1%	24.0	+28%	5.8	-43%	5.7	-7%
	1978	30%	-		5.6	+7%	21.9	+13%	2.6	+27%	3.8	+8%	17.2	-21%	46.0	-19%	20.8	-54%	17.7	-24%
	1964	69%	+		5.5	+9%	13.6	+38%	1.8	+17%	3.0	+19%	23.9	-14%	57.7	+16%	7.7	-6%	9.9	-13%

Supplemental Table 2. PSMA-VOL, SUVmean and SUVmax of normal organs in ⁶⁸Ga-PSMA-11 PET/CT of 20 patients who received a baseline and follow-up scan during ¹⁷⁷Lu-PSMA RLT. Abbreviations: PSMA-VOL, PSMA-avid tumor volume; NL, new lesions; Bsl, baseline; %, percentage change on the follow-up PET scan relative to baseline.