

Supplemental Data

Number of Radiation Induced Foci

	Control	5 min	30 min	4h	24h	48h	72h	144h
PSMA	0.22±0.09	4.37±2.18 (**)	3.36±1.54 (**)	1.81±1.17 (**)	0.75±0.39 (**)	0.42±0.29 (*)	0.21±0.17 (n.s.)	0.09±0.05 (n.s.)
DOTATOC	0.27±0.18	3.51±2.76 (**)	3.05±2.07 (**)	1.54±0.92 (**)	0.91±0.50 (**)	0.60±0.41 (**)	0.50±0.44 (**)	0.08±0.04 (n.s.)
Total	0.25±0.15	3.93±2.51 (**)	3.20±1.82 (**)	1.67±1.04 (**)	0.83±0.45 (**)	0.53±0.37 (**)	0.39±0.39 (n.s.)	0.09±0.04 (n.s.)

Table 1: Average and standard deviation of radiation induced foci on blood lymphocytes at different post-injection time-points for patients who underwent Lu-177-DOTATOC or -PSMA therapy. The control value is given as absolute value of foci per blood leukocyte. Two asterisks (**) indicate that Wilcoxon signed rank testing rated differences between the RIF at a respective time point and the control value as significant ($p < 0.01$), one asterisk as significant ($p < 0.05$), and n.s. as non-significant.

Dose-Rate in Peripheral Blood

	1h	4h	24h	48h	72h	144h
PSMA	20.75 ± 6.62	11.08 ± 4.50	2.29 ± 1.30	0.95 ± 0.54	0.47 ± 0.31	0.12 ± 0.20
DOTATOC	12.63 ± 4.74	6.14 ± 2.32	0.73 ± 0.49	0.34 ± 0.22	0.21 ± 0.15	0.08 ± 0.07
Total	16.36 ± 6.94	8.41 ± 4.25	1.44 ± 1.22	0.62 ± 0.50	0.33 ± 0.26	0.10 ± 0.15

Table 2: Average and standard deviation of absorbed dose rate to the blood in mGy/h at different nominal post-injection time-points for patients who underwent Lu-177-DOTATOC or -PSMA therapy.

Absorbed Dose in Peripheral Blood

	1h	4h	24h	48h	72h	144h
PSMA	23.8 ± 7.7	69.5 ± 22.4	161.9 ± 63.2	197.5 ± 78.2	213.8 ± 84.2	230.4 ± 86.4
DOTATOC	15.0 ± 6.6	41.7 ± 15.1	80.6 ± 30.0	91.6 ± 33.7	97.7 ± 35.2	106.4 ± 37.5
Total	19.0 ± 8.3	54.4 ± 23.3	117.9 ± 62.8	140.1 ± 78.6	150.9 ± 85.1	163.2 ± 89.4

Table 3: Average and standard deviation of absorbed dose values to the blood in mGy at different nominal post-injection time-points for patients who underwent Lu-177-DOTATOC or -PSMA therapy.