

	<b>Number of patients (%) or mean (range)</b>
Total patients included	8 (100.0)
Age (years)	63 (54-73)
Histological subtype	
- lobular	3 (37.5)
- ductal	5 (62.5)
Estrogen receptor	
- positive	8 (100.0)
Progesterone receptor	
- positive	8 (100.0)
HER2 receptor	
- negative	8 (100.0)
Treatments received	
- surgical resection	7 (87.5)
- radiotherapy	6 (75.0)
- chemotherapy	8 (100.0)
- endocrine therapy in metastatic setting	8 (100.0)
Rintodestrant therapy received*	7 (87.5)
- 400 mg	1 (12.5)
- 400 mg (cycle 1) and 800 mg afterwards**	1 (12.5)
- 600 mg	2 (25.0)
- 800 mg	1 (12.5)
- 1000 mg	2 (25.0)

**SUPPLEMENTAL TABLE 1.** Patient characteristics.

\* 1 patient did not receive rintodestrant therapy as she was a screen failure, but she did undergo <sup>18</sup>F-FES PET/CT imaging at baseline which was used in this data set.

\*\* 1 patient received 400 mg rintodestrant per day in the first cycle (i.e. 28 days) and this was increased to 800 mg per day afterwards to prevent under treatment, as it was found that higher doses have a better pharmacokinetic profile and are well tolerated.

Patients	Lines of chemotherapy	Lines of endocrine therapy in metastatic setting	Weight of patients			Rintodestrant dose received (mg)	Treatment duration (months)‡
			Baseline	Interim	After treatment†		
Patient 1*	1	3	111.1	114.0	NA	400	5.9
Patient 2	4	4	72.8	70.5	68.6	600	2.4
Patient 3	1	3	81.0	80.5	80.5	800	1.9
Patient 4	3	1	85.7	86.2	84.7	400 mg (cycle 1), 800 mg afterwards	1.7
Patient 5**	2	2	70.3	NA	NA	NA	NA
Patient 6	2	2	131.7	132.0	130.4	1000	4.1
Patient 7***	3	2	61.1	62.5	NA	1000	NA
Patient 8	2	2	63.5	65.5	58.8	600	8.2

**SUPPLEMENTAL TABLE 2.** Patient characteristics, classified accordingly per patient.

\* Patient 1 did not receive the after treatment scan.

\*\* Patient 5 is a screen failure and did therefore not receive rintodestrant.

\*\*\* Patient 7 is currently still receiving treatment.

† Patient weight was significantly different between baseline and after treatment,  $P < 0.05$ .

‡ Treatment duration is identical to the time to progression.

SUV input functions	Area under the curve (median ± IQR)			Area under the curve (median + range)	
	Baseline	Interim	After treatment***	After treatment, ≤2 days after EoT	After treatment, ≥6 days after EoT
Whole blood input, calibrated with venous blood samples	96.6 (86.3-123.3)	116.6 (112.5-144.9)*	110.3 (97.9-132.1)**	116.0 (95.7-132.1)	115.9 (104.-127.2)
Whole plasma input, calibrated with venous blood samples	145.3 (131.6-197.5)	180.4 (158.2-227.7)*	165.3 (141.4-197.0)	177.2 (137.4-192.4)	175.2 (153.5-197.0)
Metabolite corrected plasma input	54.6 (52.7-75.0)	63.6 (57.6-77.8)	63.6 (53.4-90.9)	74.6 (52.7-90.9)	63.6 (55.4-71.7)

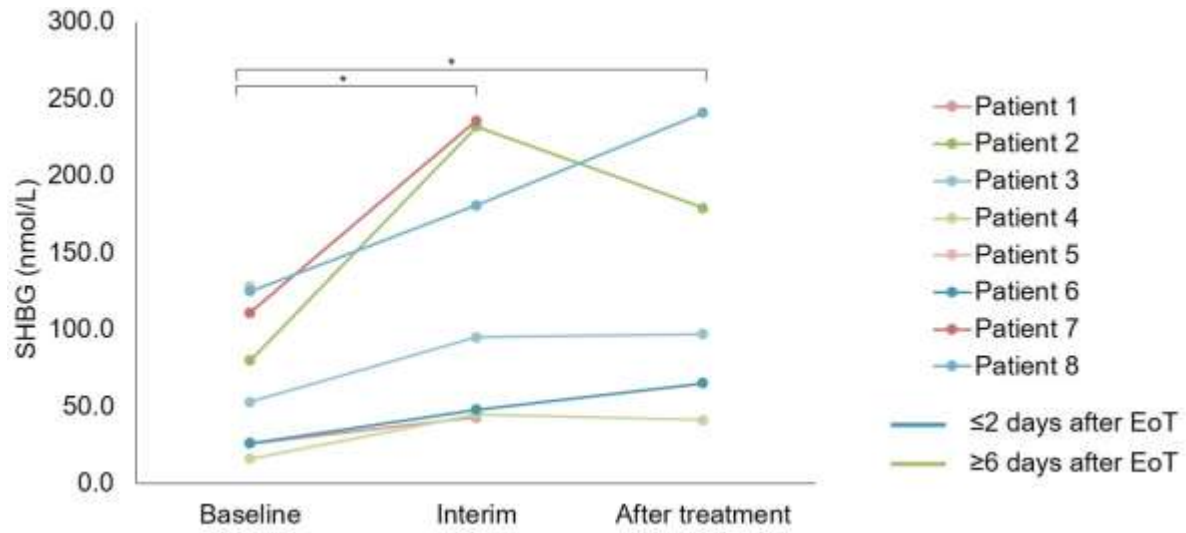
**SUPPLEMENTAL TABLE 3.** Area under the curves of the various SUV input functions at baseline, interim and after treatment.

\* Increase in AUC was significantly different between baseline and interim,  $P < 0.05$

\*\* Increase in AUC was significantly different between baseline and after treatment,  $P < 0.05$

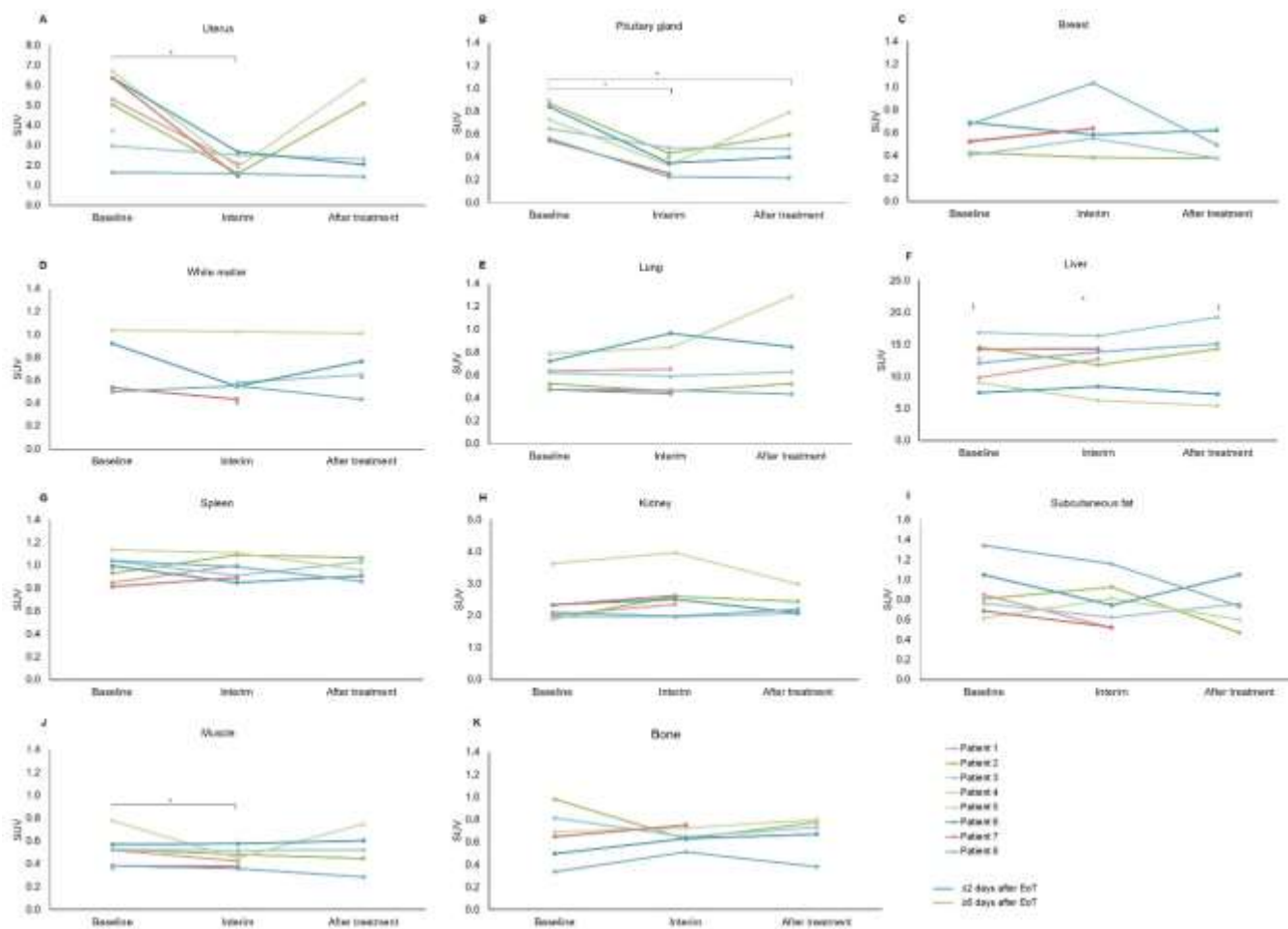
<b>Organs</b>	<b>Area under the curve (median ± IQR)</b>		
	Baseline	Interim	After treatment
Breast	25.3 (19.9-31.3)	27.0 (24.5-29.8)	26.7 (17.2-35.3)
Liver	705.2 (598.7-780.2)	593.4 (572.4-773.9)	736.2 (651.8-814.3)
Lung	39.0 (29.8-47.9)	32.6 (30.1-49.8)	28.0 (27.1-30.3)
Muscle	35.9 (34.4-37.5)	35.2 (32.5-44.2)	30.2 (27.2-35.1)
Bone	44.9 (29.0-45.3)	42.2 (38.7-44.4)	39.7 (35.4-47.3)

**SUPPLEMENTAL TABLE 4.** Area under the curves of the various SUV time-activity curves at baseline, interim and after treatment. For all organs, the differences in AUC were not significant ( $P > 0.05$ ).



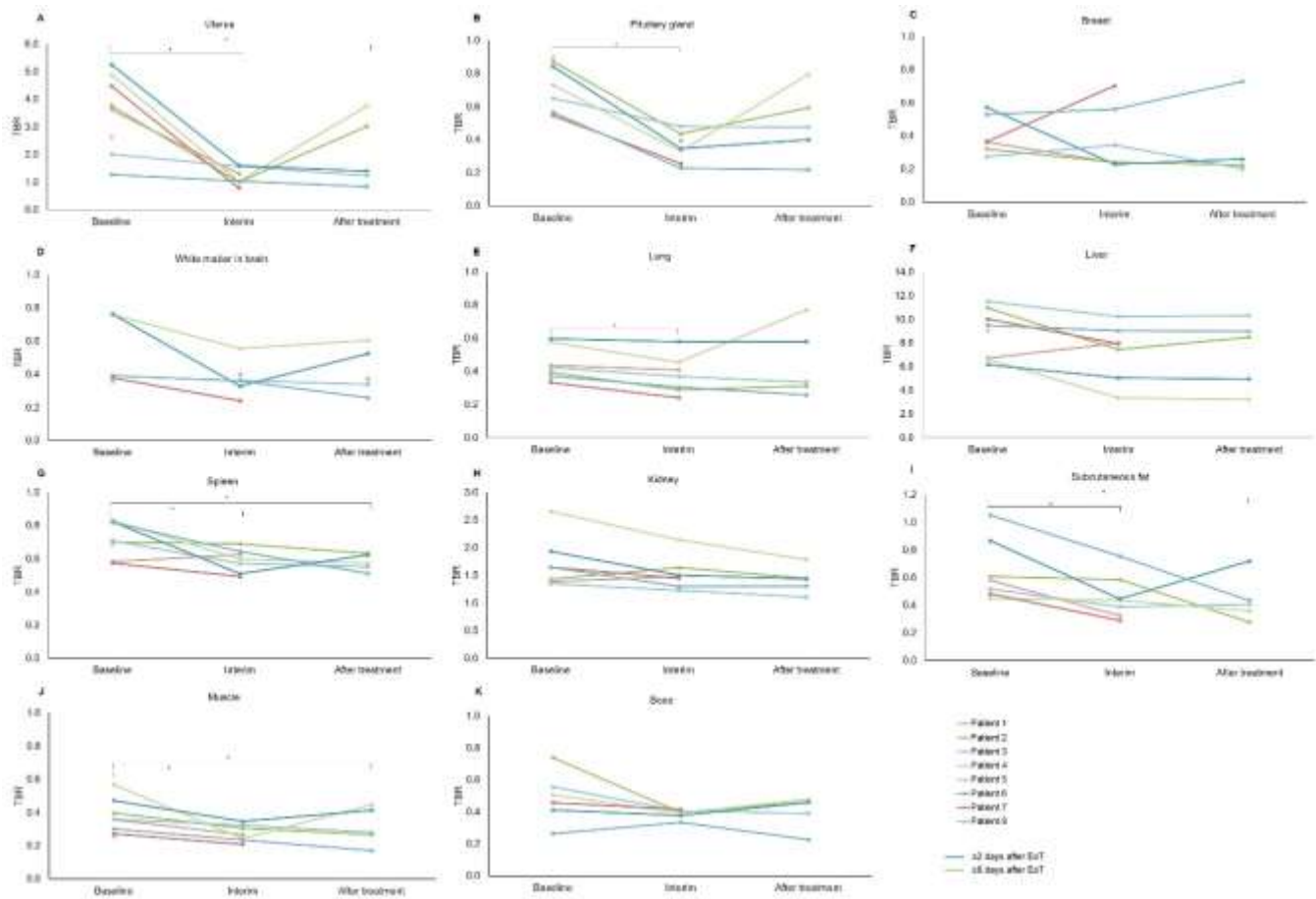
**SUPPLEMENTAL FIGURE 1.** Sex-hormone binding globuline levels in blood for each patient at baseline, interim and after treatment.

\*  $P < 0.05$



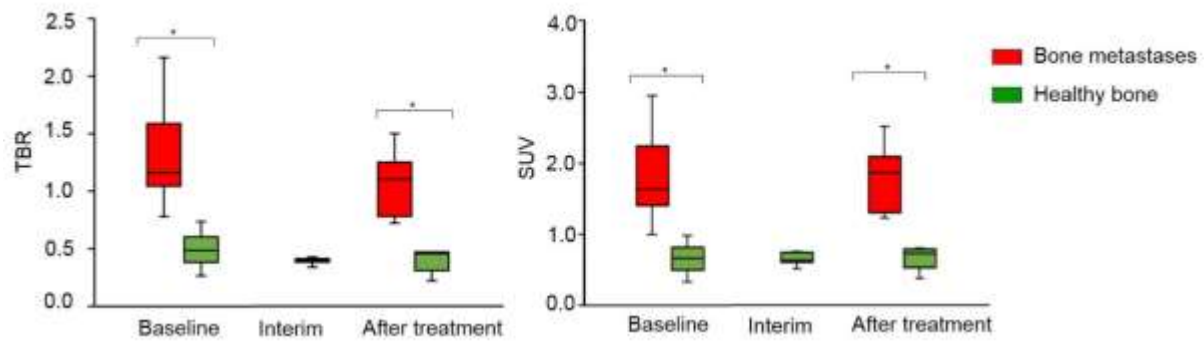
**SUPPLEMENTAL FIGURE 2.** Quantification of tracer uptake using SUV for various healthy tissues at the 3 different time-points. The after treatment scan was performed short (blue curves) or late (green curves) after end of treatment.

\* $P < 0.05$



**SUPPLEMENTAL FIGURE 3.** Quantification of tracer uptake using TBR for various healthy tissues at the 3 different time-points. The after treatment scan was performed short (blue curves) or late (green curves) after end of treatment.

\* $P < 0.05$



**SUPPLEMENTAL FIGURE 4.** Quantification of tracer uptake using SUV and TBR (median values with their interquartile range) in bone metastases and healthy bone at the 3 different time-points. At interim, no lesions could be visualized and quantified.

\* $P < 0.003$