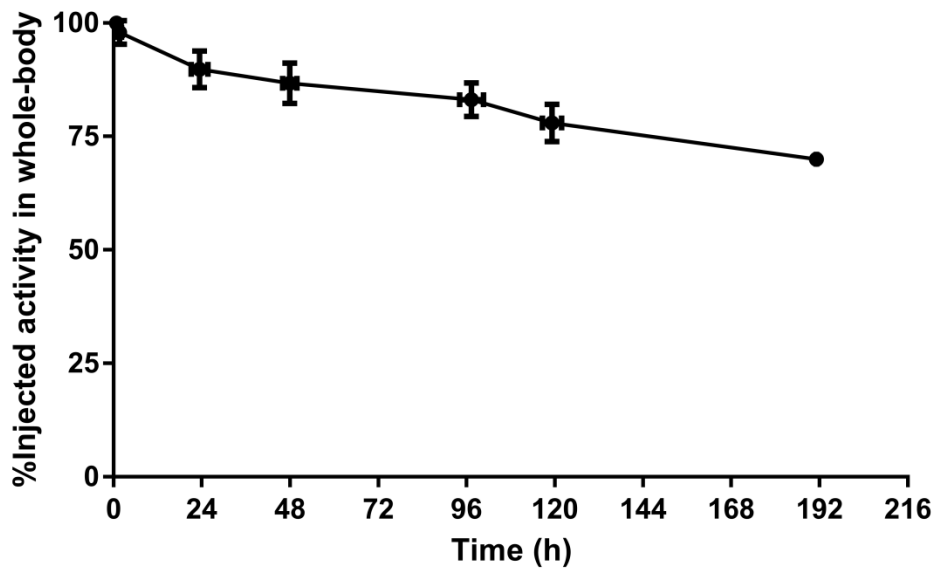
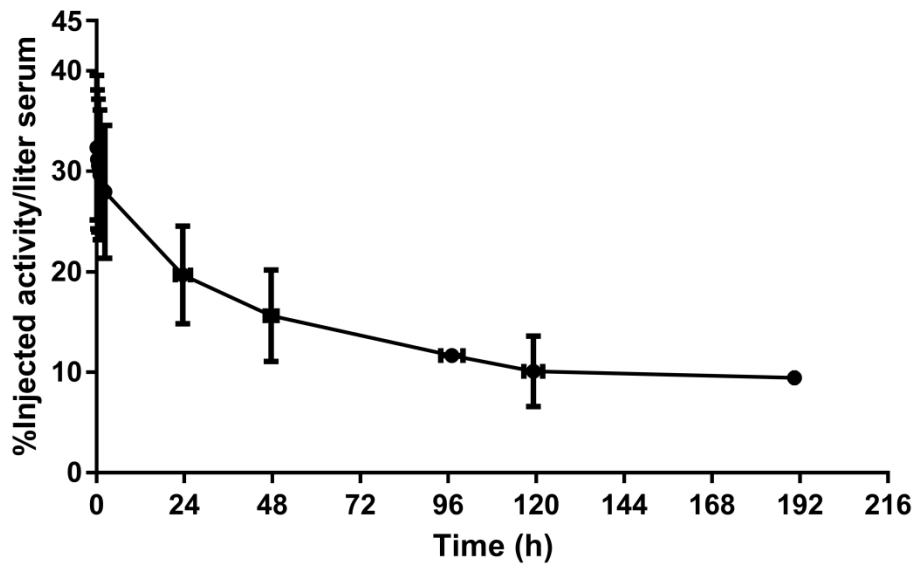


**SUPPLEMENTAL FIGURE 1.** CONSORT diagram for *Pilot Trial of PET Imaging with <sup>89</sup>Zr-DFO-Trastuzumab in Esophagogastric Cancer*. All patients in cohort 1.



**SUPPLEMENTAL FIGURE 2.** The concentration of  $^{89}\text{Zr}$ -trastuzumab in serum was determined by counting serum samples in a gamma well counter from 10 patients (upper panel). The average serum concentration (%IA/L)  $\pm$  SD was

plotted against time (h)  $\pm$  SD. Initially, most of the entire injected activity was present in the serum, which cleared with a median T1/2 of 111 h. Whole-body clearance of activity was determined by using serial probe measurement (lower panel). The initial probe measurement was done after injection of  $^{89}\text{Zr}$ -trastuzumab and prior to voiding, and thus represented 100% of the injected activity. Whole-body retention was prolonged with a median T1/2 378 h. At a mean of 120 h, there was a mean retention of 70-83% of the injected activity in the whole body.

Patient	Tumor 1	Tumor 2	Tumor 3	Tumor 4	Tumor 5	Time of last trastuzumab therapy prior to <sup>89</sup> Zr-trastuzumab (days)
1	19.3	12.8	7.3	5.4		-71
2	10.5	8.3	8.1	6.4	6.1	-42
3	Negative					Naïve
4	Negative					-35
5	3.2	3.0	2.9	2.2	2.2	-15
6	8.3	7.5	7.0	6.2	3.9	-106
7	7.2	5.8	4.0			-41
8	3.1	2.9				Naïve
9	13.5	12.6	12.5	10.9	8.4	Naïve
10	22.7	11.6	10.8	9.8	9.2	-156

**SUPPLEMENTAL TABLE 1.** Highest <sup>89</sup>Zr-trastuzumab SUV<sub>LBMmax</sub> uptake in up to 5 lesions identified per patient and demonstrated heterogeneity in the degree of tumor uptake. Patients 3 and 4 had no localization in any of their known tumor sites. The last column indicates the number of days from the last cold trastuzumab therapy to injection of <sup>89</sup>Zr-trastuzumab.