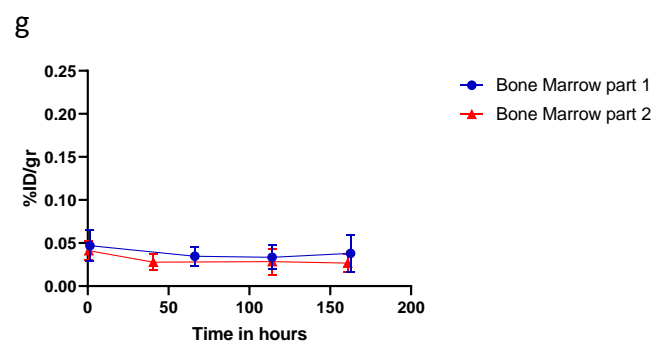
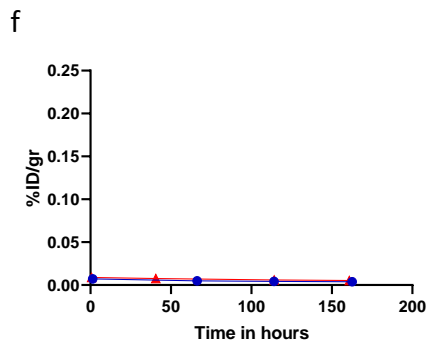
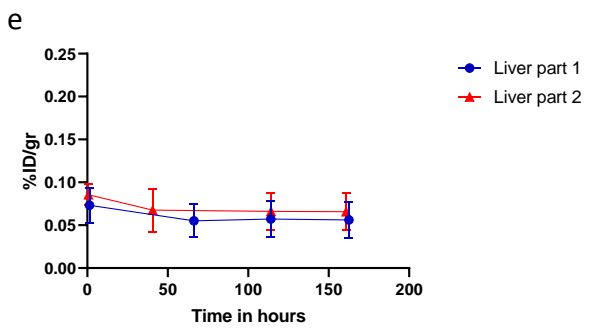
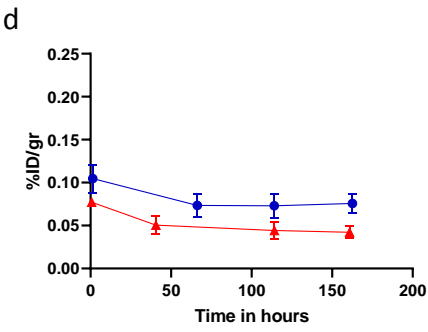
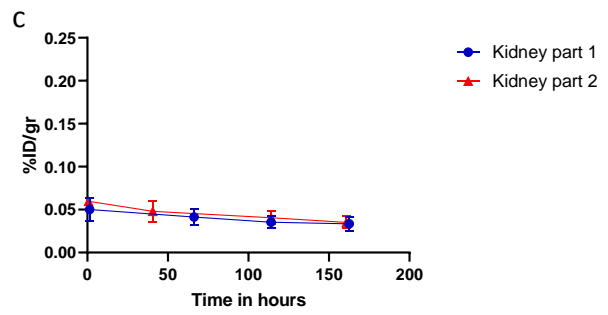
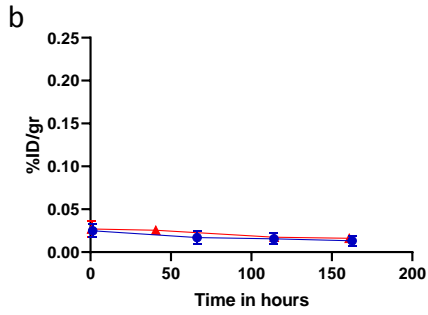
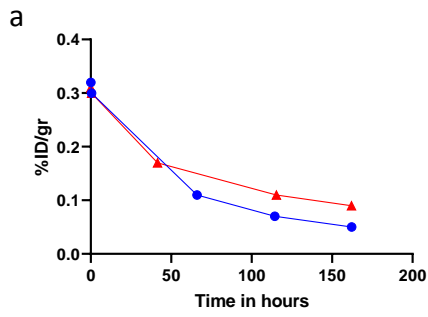


Supplemental Figure 1

Study overview. ^{89}Zr -pembrolizumab (37 MBq \pm 10%, 2 mg pembrolizumab) was intravenously (IV) injected on day 0. Static whole body PET/CT scans were performed 1 hour, and 3, 5 and 7 days post injection (p.i.) for the first 3 patients, while all other patients were scanned on day 3 and 6 p.i.. On day 12, patients received an infusion with 200 mg unlabeled pembrolizumab, within two hours followed by a second ^{89}Zr -pembrolizumab injection, to maximize the chance of representing therapeutic tumor targeting.

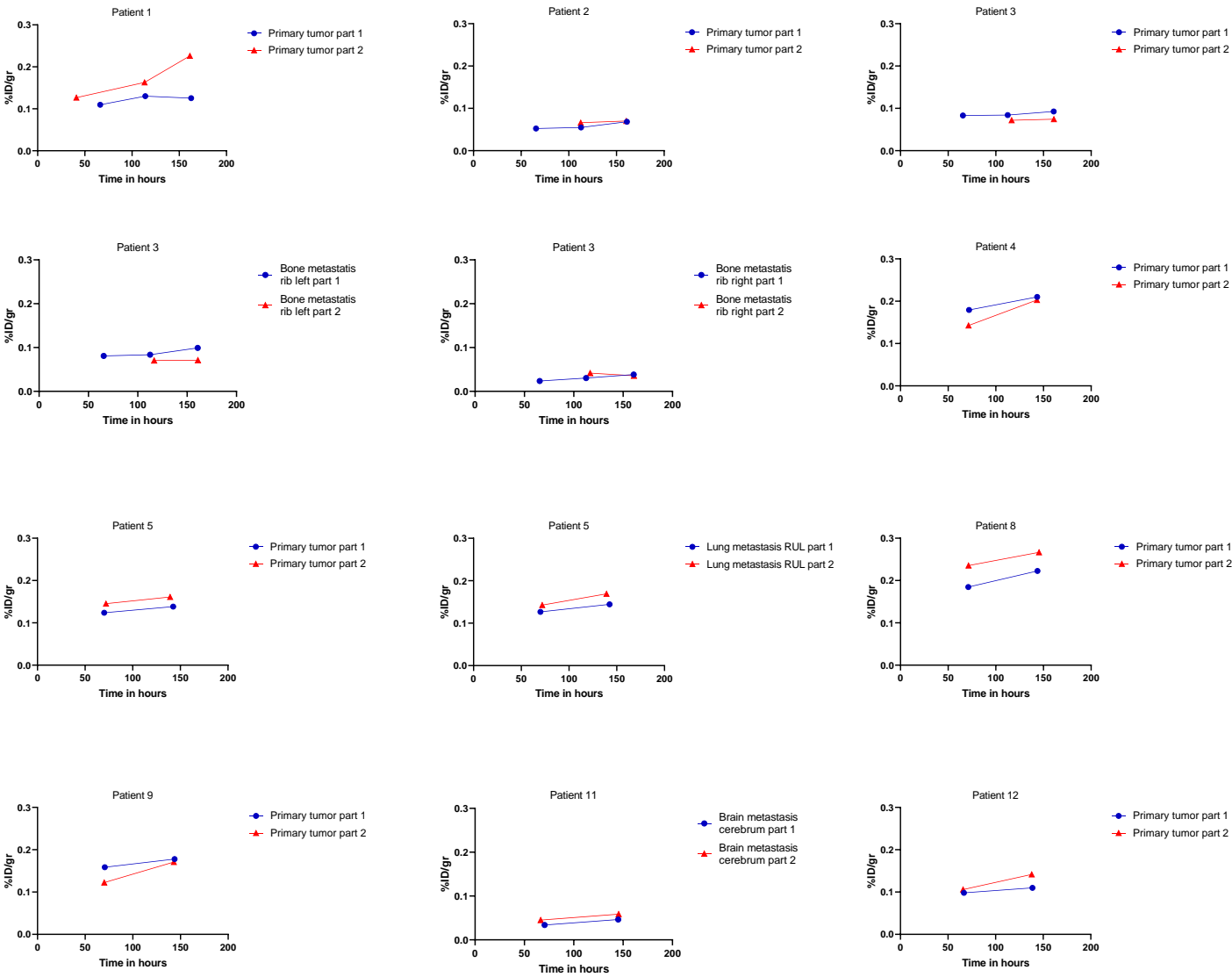
i.v. intravenous ^{89}Zr labeled pembrolizumab Q3W every three weeks



Supplemental Figure 2

Activity concentrations in first and second imaging acquisition in plasma and in organs.

%ID/gr percentage injected dose per gram tissue

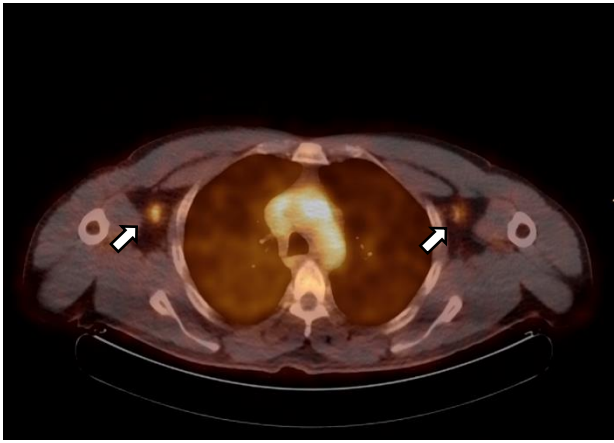


Supplemental Figure 3

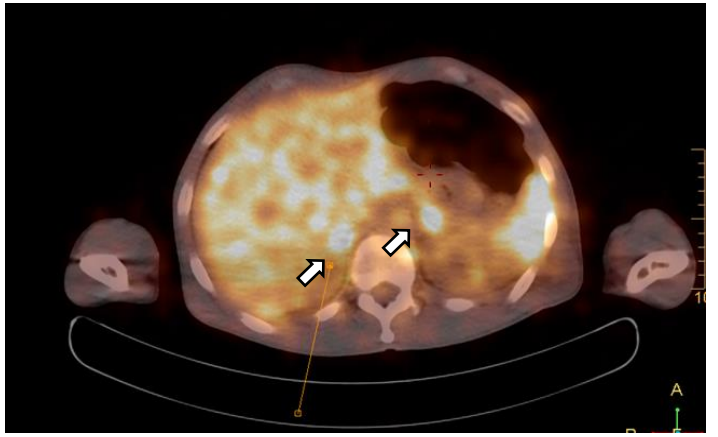
Activity concentrations (in %ID/gr) in first and second imaging acquisition in tumor.

%ID/gr percentage injected dose per gram tissue

a



b



Supplemental Figure 4

Non-malignant tissues (axillary lymph nodes, a; adrenal gland, b) showed uptake of ^{89}Zr -pembrolizumab.