

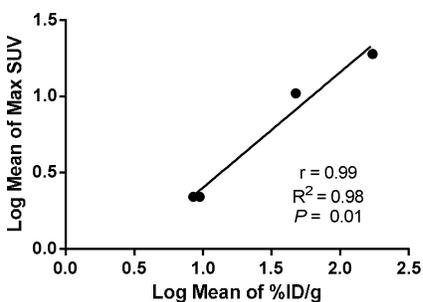
## Evaluation of $^{89}\text{Zr}$ -Pertuzumab in breast cancer xenografts

### Supplementary Materials

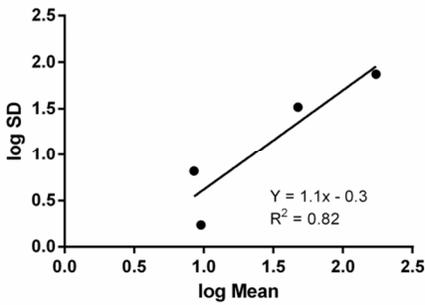
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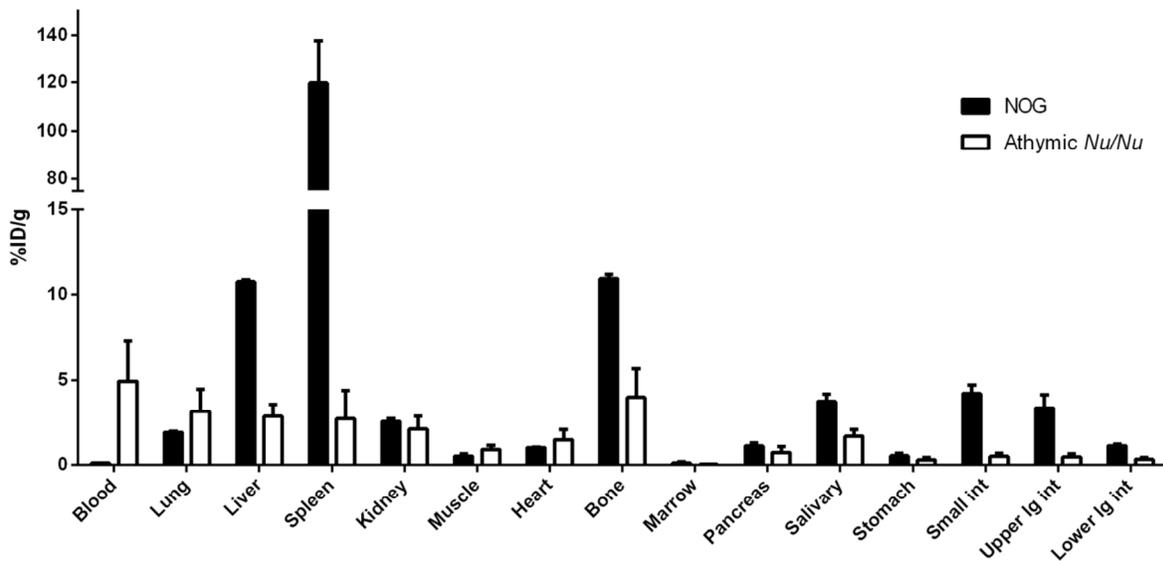
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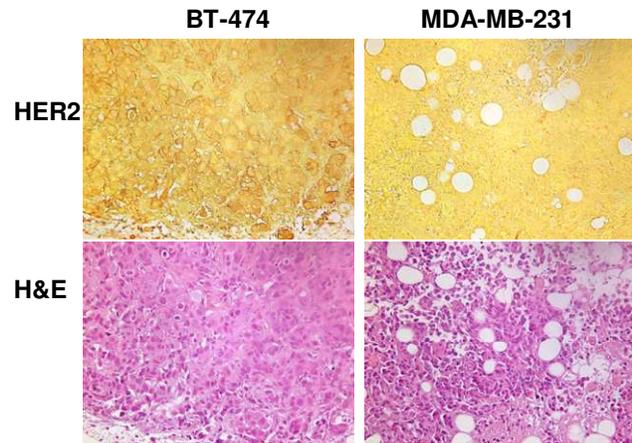
**Figure S1.** Correlation between biodistribution (Log Mean %ID/g) and max SUV (Log Mean of Max SUV) for  $^{89}\text{Zr}$ -Pertuzumab tumor uptake in BT-474,  $^{89}\text{Zr}$ -Pertuzumab in the presence of unlabeled Trastuzumab,  $^{89}\text{Zr}$ -Pertuzumab in the presence of unlabeled Pertuzumab, and  $^{89}\text{Zr}$ -Pertuzumab in MDA-MB-231.



**Figure S2.** Linear regression fit of the log mean versus the log standard deviation from the biodistribution data of  $^{89}\text{Zr}$ -Pertuzumab tumor uptake in BT-474,  $^{89}\text{Zr}$ -Pertuzumab in the presence of unlabeled Trastuzumab,  $^{89}\text{Zr}$ -Pertuzumab in the presence of unlabeled Pertuzumab, and  $^{89}\text{Zr}$ -Pertuzumab in MDA-MB-231. The slope of this regression equals 1.1, which suggests statistical analysis should be performed in the log scale of the biodistribution data.



**Figure S3.** Biodistribution of  $^{89}\text{Zr}$ -Pertuzumab in non-tumor bearing NOG and athymic *Nu/Nu* mice ( $n = 2$ ).



**Figure S4.** Immunohistochemical staining of excised tumors from BT-474 and MDA-MB-231 stained for HER2 (brown) and counterstained with tartrazine (yellow). Tissues were visualized under 20× magnification. H&E staining confirmed viability of tumor tissues.