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3 SUPPORTING INFORMATION AVAILABLE  
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6 **Supplemental figure 1.**  
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8 Change in fluorescence signal in HER2 positive and HER2 negative tumors. One day  
9 after the Tra-Alexa680-biotin (50  $\mu\text{g}$ , iv) injection, avidin (250  $\mu\text{g}$ , iv) was injected to  
10 each mouse. Fluorescence images were obtained in the same manner as described above  
11 at 5, 30, 60, 180, 360, 720 and 1440 min after the avidin injection (A). The additional  
12 nAv-QSY21 injection (250  $\mu\text{g}$ , iv) was performed 30min after the avidin injection to  
13 investigate the quenching effect, and images were obtained in the same manner at 5, 30,  
14 60, 180, 360, 720 and 1440 min after the nAv-QSY21 injection (B). The additionally  
15 injected nAv-QSY21 decreased the fluorescence only from HER2 negative tumor.  
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17 Because the chase effect is mostly performed by previous avidin treatment, these results  
18 show the quenching effect of nAv-QSY21. This information is available free of charge via  
19 the Internet at <http://pubs.acs.org>.  
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