## Supplementary Figure 1



Supplementary Figure 1. Cross reactivity checks of cet-IR700 and pan-IR700 to EGFR

No cross reactivity in binding function to EGFR was demonstrated by flow cytometry.

## Supplementary Figure 2



Supplementary Figure 2. No significant difference of In vivo tumor growth inhibitory effect with only a single exposure PIT in the MDAMB468-luc orthotopic model

Only a single exposure of PIT was evaluated with cet-IR700 or pan-IR700.

No significant difference in treatment effects was seen when evaluated by luciferase activity (n = 5 mice in each treatment group).

The treatment regimen and the time point of measurement of bioluminescence are indicated above the graph.

## Supplementary Figure 3



Supplementary Figure 3. In vivo fluorescence imaging of mice with cet-IR700 or pan-IR700

In vivo fluorescence imaging of mice with cet-IR700 or pan-IR700. High signals in the intestine were observed as early as 1 hr after injection of cet-IR700, suggesting rapid clearance through hepatobiliary system.

## Supplementary Videos

Time -lapse Imaging of PIT in vitro

Time-lapse sequential images showed rapid membrane damage after NIR light irradiation in cells treated with cet-IR700 or pan-IR700 (for 15 min observation). Flashing light is NIR light irradiation.

video1: time-lapse image of A431 cell treated by cet-IR700 video2: time-lapse image of A431 cell treated by pan-IR700 video3: time-lapse image of MDAMB468-luc cell treated by cet-IR700 video4: time-lapse image of MDAMB468-luc cell treated by pan-IR700