

Supplementary information

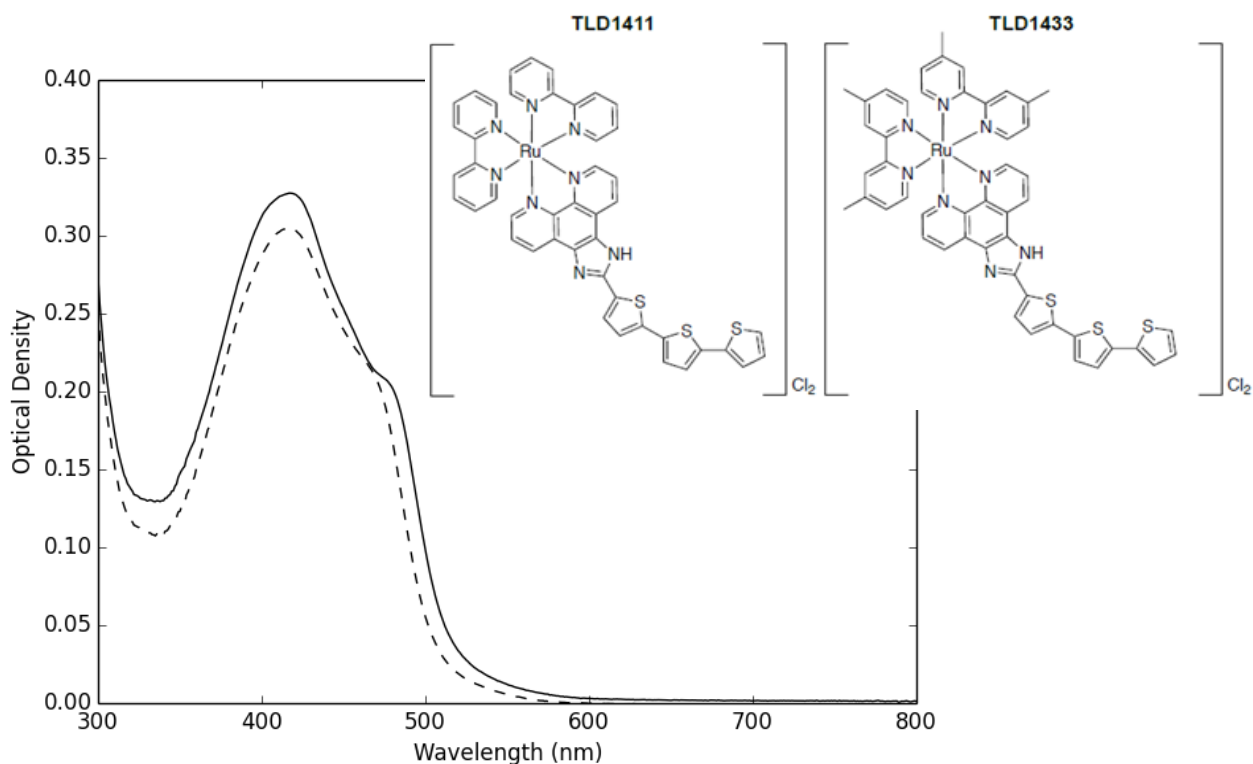


Fig. SI1: Left) Absorbance spectra of TLD1411 (dashed line) and TLD1433 (solid line) at concentrations of $2\mu\text{M}$. Right) Chemical structures of TLD1411 and TLD1433.

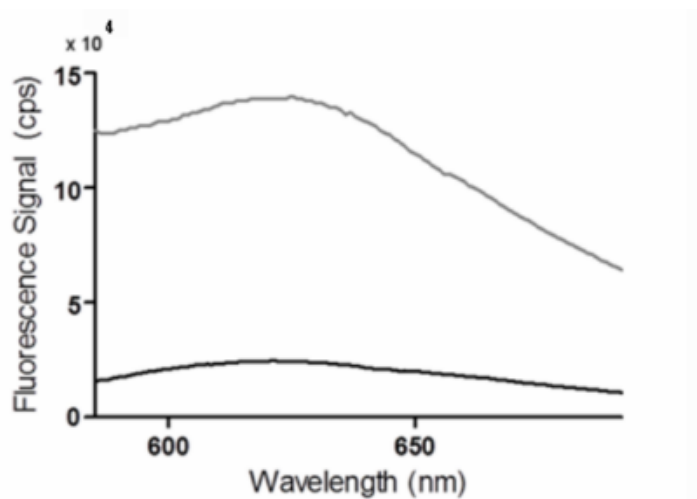


Fig. SI2: PS luminescence emission. The emission spectra of TLD1411 (black line) and TLD1433 (grey line) at concentrations of $330\mu\text{M}$ and $11\mu\text{M}$, respectively, measured in a 3 mm path length cuvette.

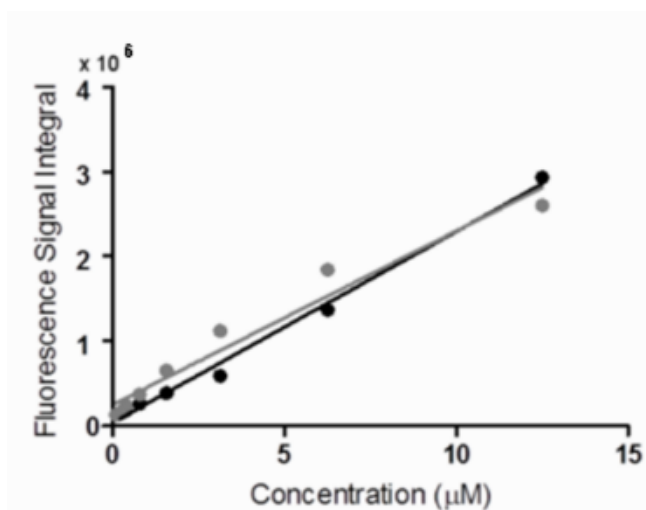


Fig S13. The emission integral for concentrations of 0.98 to 12.5 μM for TLD1411 (black line) and TLD1433 (grey line) was calculated and plotted versus PS concentration as emission calibration curves for tissue extraction experiments. Linearity was probed between the dynamic ranges of 0.195 μM to 12.5 μM ($R^2 = 0.99$) and 0.98 μM to 12.5 μM ($R^2 = 0.96$) for TLD1411 and TLD1433, respectively.

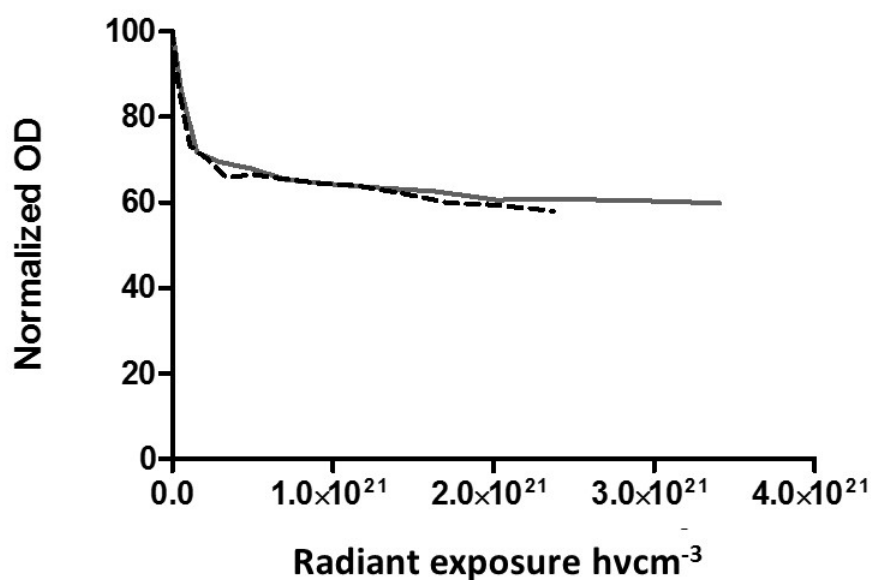


Fig. SI4: PS photobleaching. The ODs, normalized at 0 Jcm^{-2} , of 5 μM TLD1411 (dashed) and 6.7 μM TLD1433 (solid) after 60 minutes of irradiation (525 nm, 78 mWcm^{-2}) are shown. The ODs were recorded at the maximal absorbance for each PS: 425 nm for TLD1411 and 423 nm for TLD1433. PSs were dissolved in water plus BSA at 25 μM and 34 μM for TLD1411 and TLD1433, respectively.

