

*Electronic Supplementary Information (ESI) for:*

**Bacterial Imaging and Photodynamic Therapy Using Zinc(II)-Dipicolylamine  
BODIPY Conjugates**

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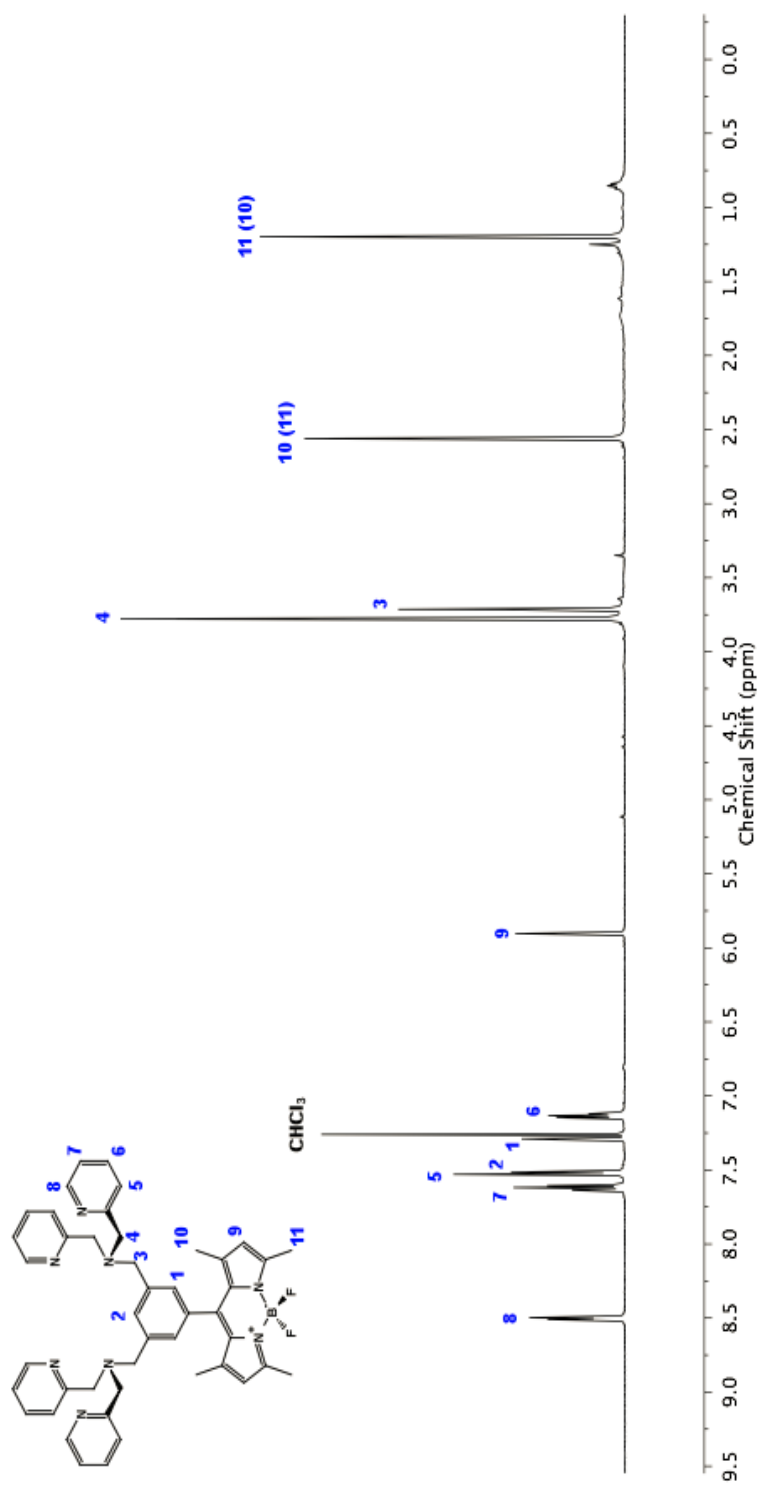
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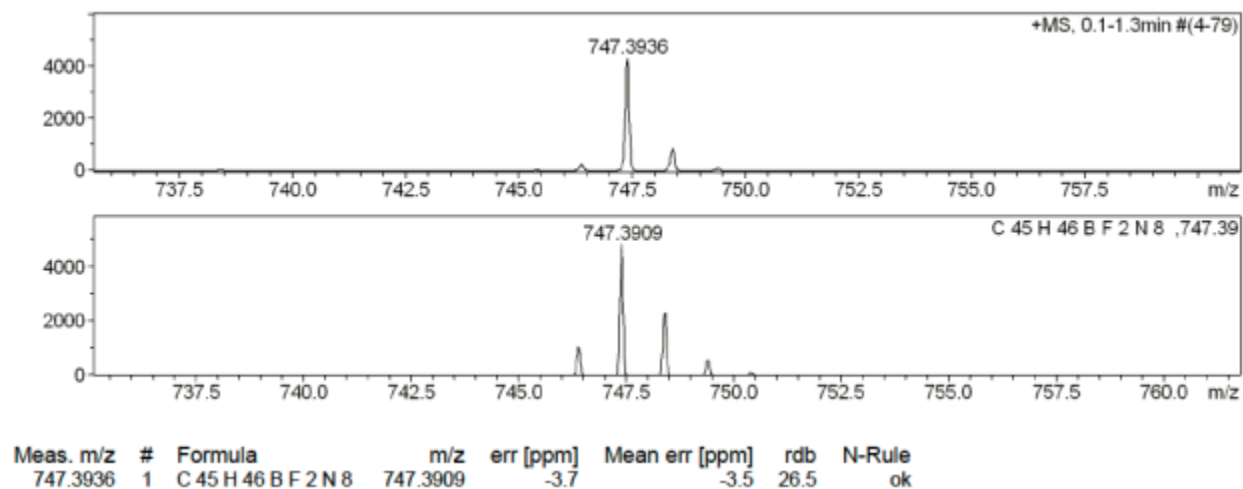
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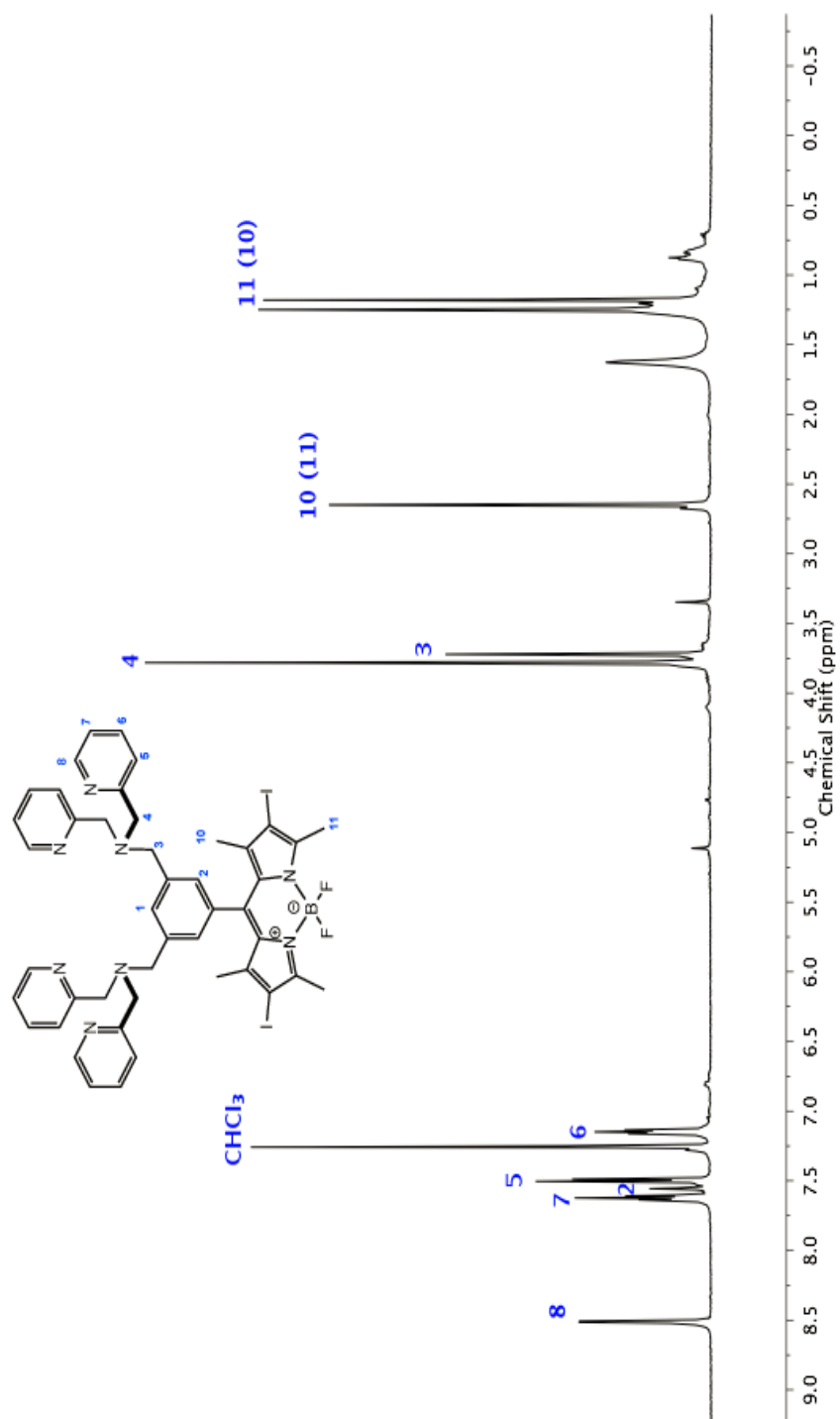
# A. $^1\text{H}$ NMR and Mass Spectra



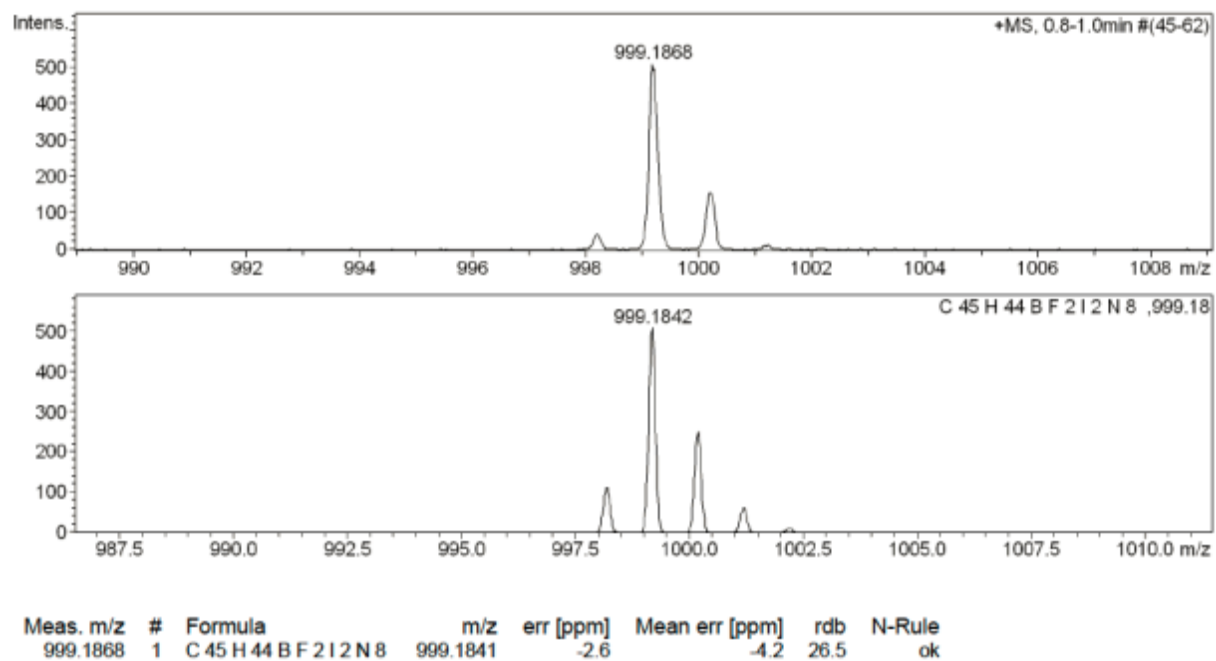
$^1\text{H}$  NMR spectrum (500 MHz,  $\text{CDCl}_3$ , 23°C) of **3a**



Observed and calculated mass spectra for **3a**



$^1\text{H}$  NMR (500 MHz,  $\text{CDCl}_3$ ,  $23^\circ\text{C}$ ) spectrum of **3b**



Observed and calculated mass spectra for **3b**

## B. Photophysical Properties

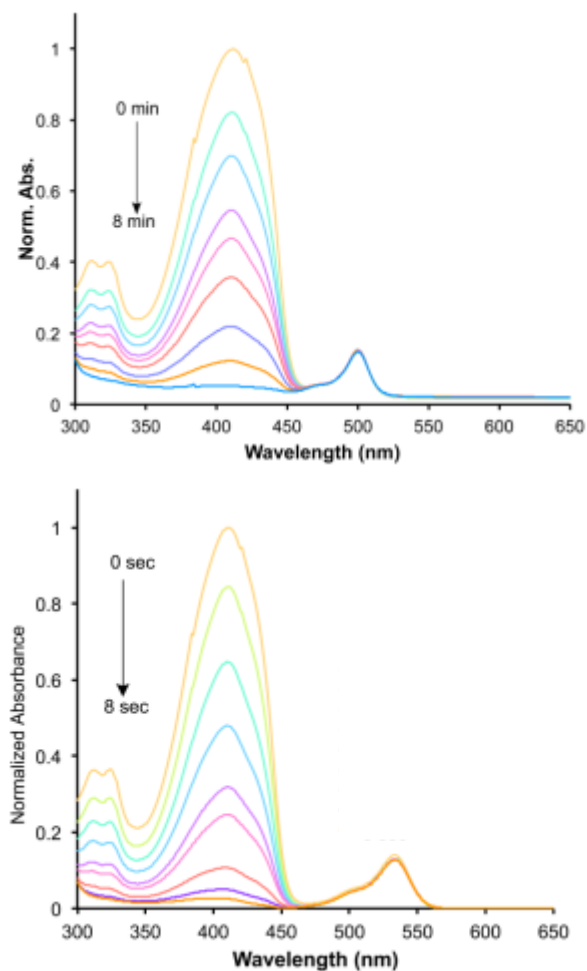


Figure S1. Change in absorption profile of DPBF (100  $\mu\text{M}$ ) and **mSeek** (top) and **mDestroy** (bottom) (5.0  $\mu\text{M}$ ) in  $\text{CH}_3\text{CN}$  (25 $^\circ\text{C}$ ) during irradiation with green light.

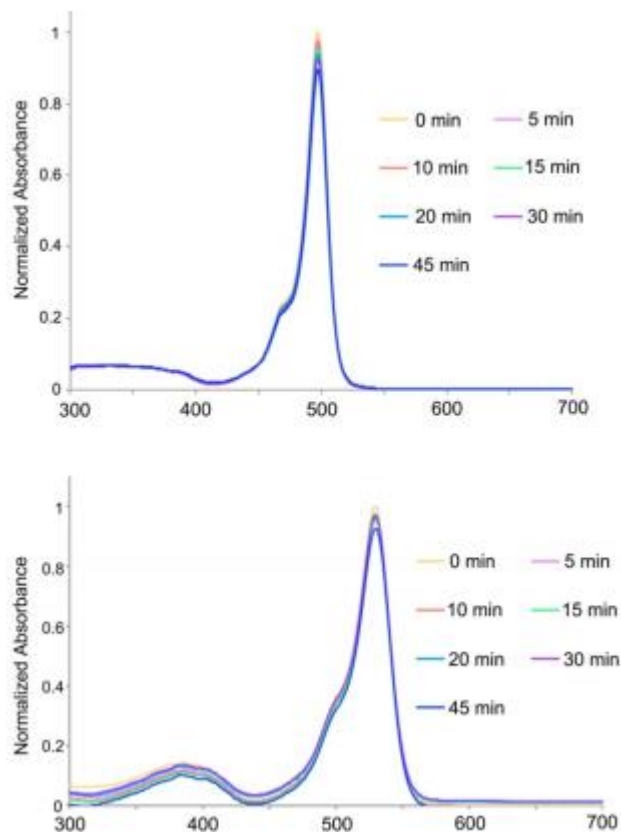


Figure S2. Absorption spectra of **mSeek** (top) and **mDestroy** (bottom) ( $5\ \mu\text{M}$ ) in acetonitrile ( $25^\circ\text{C}$ ) after various lengths of irradiation with green light.

## C. Cell Studies

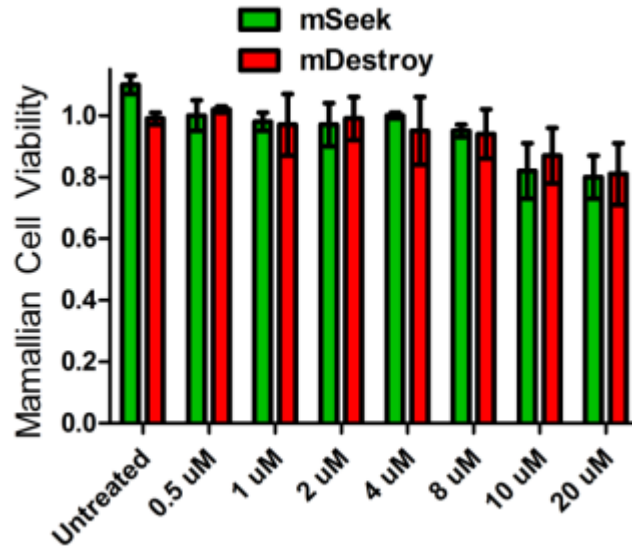


Figure S3. Cell viability of CHO-K1 cells treated with either **mSeek** (Green) or **mDestroy** (Red) for 24 hours at 37 °C in the dark.

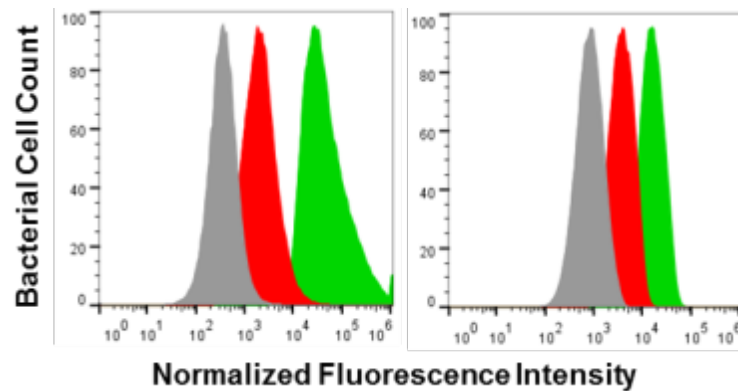


Figure S4. Flow cytometry histograms of *K. pneumoniae* NRS11 (left) and purified *B. thuringiensis* spores (right) bacterial cell count vs fluorescence intensity with no treatment (grey), control dye 4 (red) and **mSeek** (green). All histograms are representative of  $n = 3$  for both cell lines.



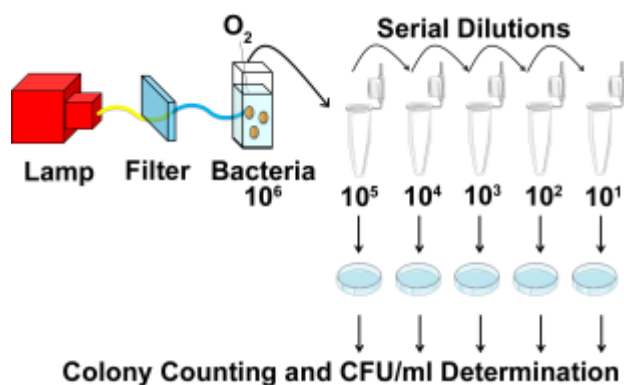


Figure S5. Graphical workflow of bacterial photoinactivation experiment. After treatment with PS, the bacteria are placed into a cuvette and exposed to green light for one hour with continuous bubbling of  $O_2$ . The sample is then serially diluted from  $10^5$ - $10^1$ , spread onto agar plates and incubated for 16-24 hours at  $37^\circ C$ . Following incubation, the plates are examined for colony growth and the CFU/mL is determined.

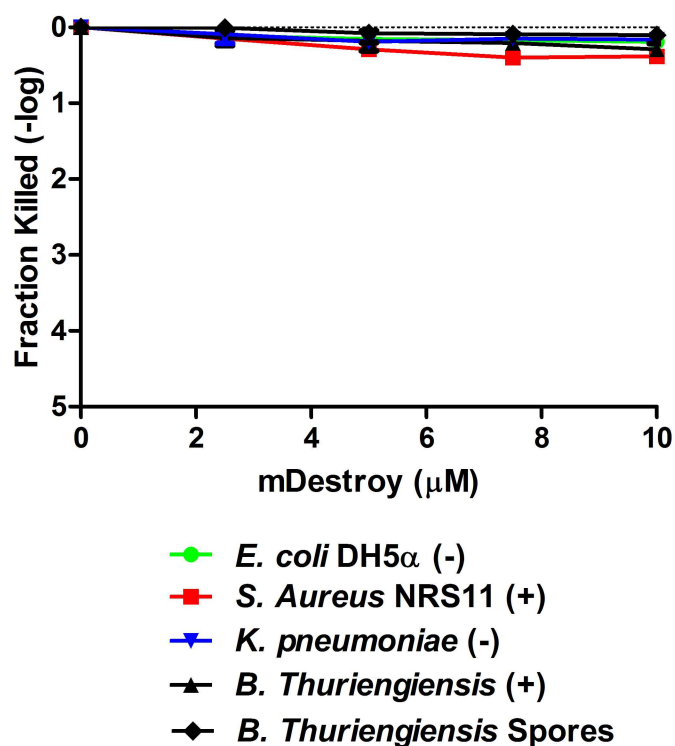


Figure S6: Fractions of killed bacterial cells treated with different concentrations of **mDestroy** without irradiation.

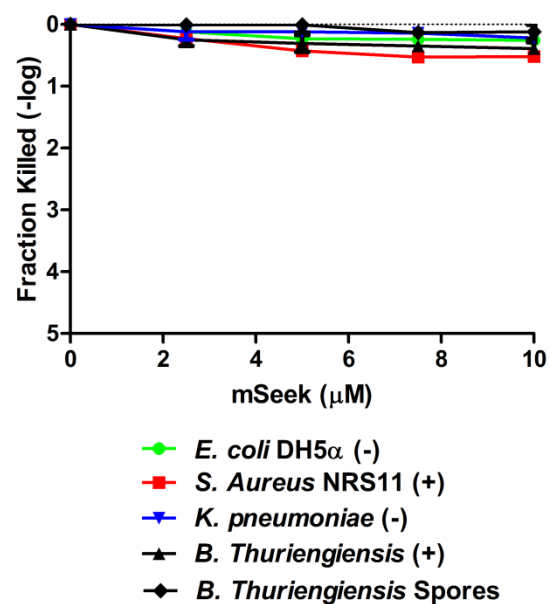


Figure S7. Fractions of killed bacterial cells treated with different concentrations of **mSeek** and irradiated with constant amount of green light for 60 min.