Supplementary data

Table S1. TMPyP (**1**) mediated photodynamic inactivation of *M. smegmatis* in the presence of the singlet oxygen quencher NaN_3.[a]

NaN_3 concentration (mM)	Survival (%) [mean ± SD]
0 (control)	$<1x10^{-4}$
0.2	0.0030 ± 0.0032 [b]
2	0.0060 ± 0.0023
20	54.8 ± 8.9

[a] Conditions: 750 nM TMPyP (**1**), 15 min illumination at 60 mW/cm^2 for a total fluence of 54 J/cm^2. The control (0 mM NaN_3 added) exhibited no surviving mycobacteria, and was therefore set to the detection limit of less than 1×10^{-4} %.
[b] Not statistically significant ($P = 0.26$)

Table S2. Published values for photophysical properties of photosensitizers.

PS	ϕ_Δ	Medium	Method	Reference
TMPyP (**1**)	0.74	PBS	O_2 consumption	1
TNMAP (**2**)	0.48	PBS	$^1O_2$ luminescence	2
MB (**3**)	~0.5	H_2O	Substrate consumption	1
TSSP (**4**)	0.75	PBS	$^1O_2$ luminescence	2
PhCS (**6**)	0.14	H_2O	product appearance	1

1. Wilkinson; F, Helman; WP, Ross; AB. Quantum yields of photosensitized formation of the lowest electronically excited singlet state of molecular oxygen in solution. *J Phys Chem Ref Data* 1993; **22:** 113.
2. Lambert C. R., Reddi E. J., Spikes J. D. *et al.* The effects of porphyrin structure and aggregation state on photosensitized process in aqueous and micellar media. *Photochem Photobiol* 1986; **44:** 595-601.

PS Binding Assay

The binding/uptake of the PS by *M. smegmatis* was estimated using fluorescence spectroscopy. *M. smegmatis* was grown to an OD_{600} of 0.6 in 5 mL cultures and treated with the PS as described above. The cells were pelleted by centrifugation and washed in PBS Tween 80 containing buffer (5 mL). The cells were then lysed with 4 × 1 min bursts of a Branson 450 sonicator. The number of washing/centrifugation steps before cell lysis was varied from 1-3. After centrifugation the amount of extracted PS in the supernatant was determined by fluorescence spectroscopy on a Photon Technology International instrument. The concentration of recovered PS was estimated by comparison to a calibration curve of known concentrations of the PS in the same buffer (PBS Tween) containing water soluble cell material of *M. smegmatis* at a comparable concentration to the samples. Each data point is the average of 6-9 individual samples. The data was analyzed by Soft CRM 1.2.2 to test for possible outliers.

Fluorescence experiments with PhCS (6)

M. smegmatis was grown as described in the methods section to a concentration of 10^8 CFU/mL. As a comparison *E. coli* was grown in LB media with ampicillin (100 μg/mL) and chloramphenicol (50 μg/mL) as antibiotics to 10^8 cfu/mL. The cells were pelleted and resuspended in PBS buffer containing 2.5% Tween 80. The cells were lysed by 4 × 1 min bursts with a Branson 450 sonicator. The suspension was centrifuged (30 min, 3716 **g**) and the supernatant was used for fluorescence measurements. Fluorescence spectra of 5 μM solutions of **6** were recorded employing different ratios (see Figure S1 caption for details) of PBS containing 2.5% Tween-80 and the lysed cell solutions. The combination of decreased fluorophore and high background emission made it difficult to accurately quantify concentrations of PS **6** in the presence of *M. smegmatis* cell lysate.

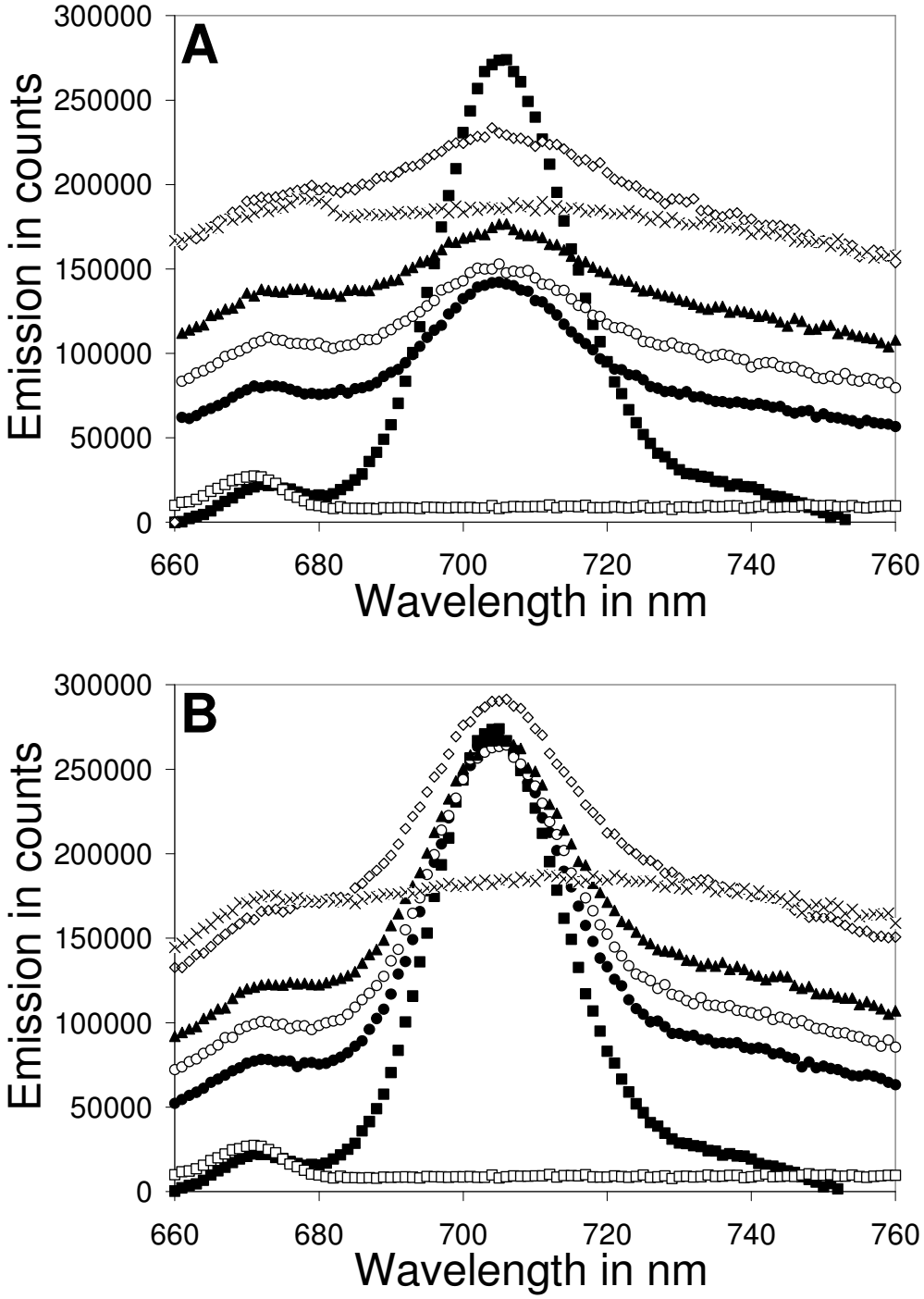

Figure S1. Fluorescence spectra of 5 µM PhCS (**6**) in different ratios of PBS buffer (2.5% Tween) and cell lysate from 10^8 cfu/mL bacterial cell suspension; excitation 602 nm; band width 4 nm; integration 0.5 s: (**A**) *M. smegmatis* (**B**) *E. coli*. Legend: PBS with 2.5% Tween-80 (□), 5 µM **6** in PBS Tween (■), 5 µM **6** in PBS-Tween : cell lysate 2:1 (●); 5 µM **6** in PBS-Tween : cell lysate 1:1 (○); 5 µM **6** in PBS-Tween : cell lysate 1:2 (▲); 5 µM **6** in cell lysate (◊), cell lysate (x).