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SUPPLEMENTARY FIGURES



Figure S1. Measurement of AuNP size using Dynamic Light Scattering (DLS). A) 100% TEGOH B) 20% TTMA C) 65% TTMA D) 96% TTMA E) 100% TTMA. Graph shows size distributions of three measurements.



Figure S2. TEM image of AuNPs. A) 100% TEGOH B) 20% TTMA C) 65% TTMA D) 96% TTMA E) 100% TTMA. Samples were prepared on 300 square mesh nickel grids with Formvar film purchased from Electron Microscopy Sciences. Images were acquired on a JEOL 100CX operating at 100 keV. Inset shows a histogram of the measured nanoparticle diameters. Scale bar=10 nm.



Figure S3. AuNP treatment disrupts *S. aureus* biofilm. Representative images show biofilm after staining with SYTO9 (green channel) and PI (red channel, yellow arrows). Scale bar=20μm.

Nanoparticle	Diameter (nm)
100% TEGOH	$2.5 \pm 0.5 \text{ nm}$
20% TTMA	$2.7 \pm 0.4 \text{ nm}$
65% TTMA	$2.6 \pm 0.4 \text{ nm}$
96% TTMA	$2.5 \pm 0.3 \text{ nm}$
100% TTMA	$2.4 \pm 0.4 \text{ nm}$

Table S1. Average diameters of AuNP core derived from TEM image analysis.