

Supporting information for:

Treatment of *Streptococcus pneumoniae* Otitis Media in a Chinchilla Model by Trans-Tympanic Delivery of Antibiotics

List of Authors

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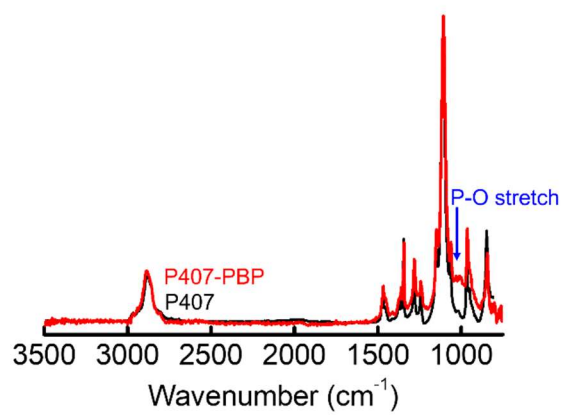


Fig. S1. FTIR spectrum of the polymer poloxamer 407-polybutylphosphoester (P407-PBP).

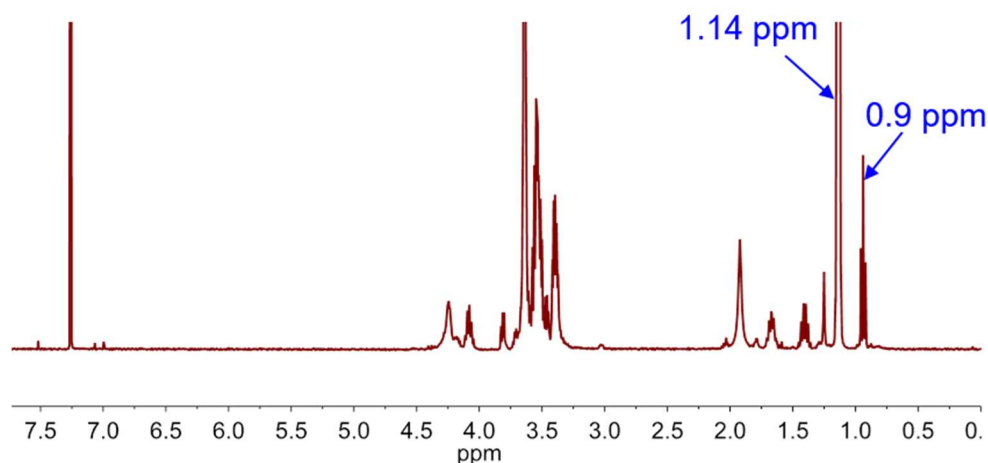


Fig. S2. NMR spectrum of the polymer P407-PBP. The chemical shifts (δ , in ppm) for the peaks corresponding to the hydrogens in *italics* in the following list of polymers is provided below.

t/m/broad indicate the shape of a peak (i.e., triplet, multiple, broad). CDCl_3 was the solvent. ^1H NMR (CDCl_3 , ppm): δ 0.90-0.96 (t, 3H, $\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$), 1.14 (m, 3H, $\text{CH}_2\text{CH}(\text{CH}_3)\text{O}$), 1.36-1.46 (m, 2H, $\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$), 1.62-1.72 (m, 2H, $\text{CH}_2\text{CH}_2\text{CH}_2\text{CH}_3$), 3.36-3.42 (m, $\text{CH}_2\text{CH}(\text{CH}_3)\text{O}$), 3.48-3.58 (m, 2H, $\text{CH}_2\text{CH}(\text{CH}_3)\text{O}$), 3.65 (m, 4H, $\text{OCH}_2\text{CH}_2\text{O}$), 4.04-4.14 (m, 2H, $\text{PCH}_2\text{CH}_2\text{CH}_2\text{CH}_3$), 4.16-4.30 (broad, 4H, $\text{POCH}_2\text{CH}_2\text{O}$).

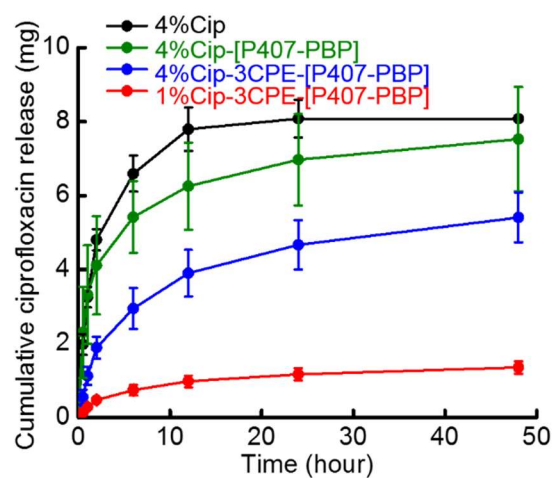


Fig. S3. Cumulative in vitro release of Cip from the hydrogel formulations under infinite sink conditions. Eight milligrams of Cip were contained in each 4% Cip gel and solution at time zero; two milligrams of Cip were contained in each 1% Cip gel. Data are means $\pm$ SD (n=4).

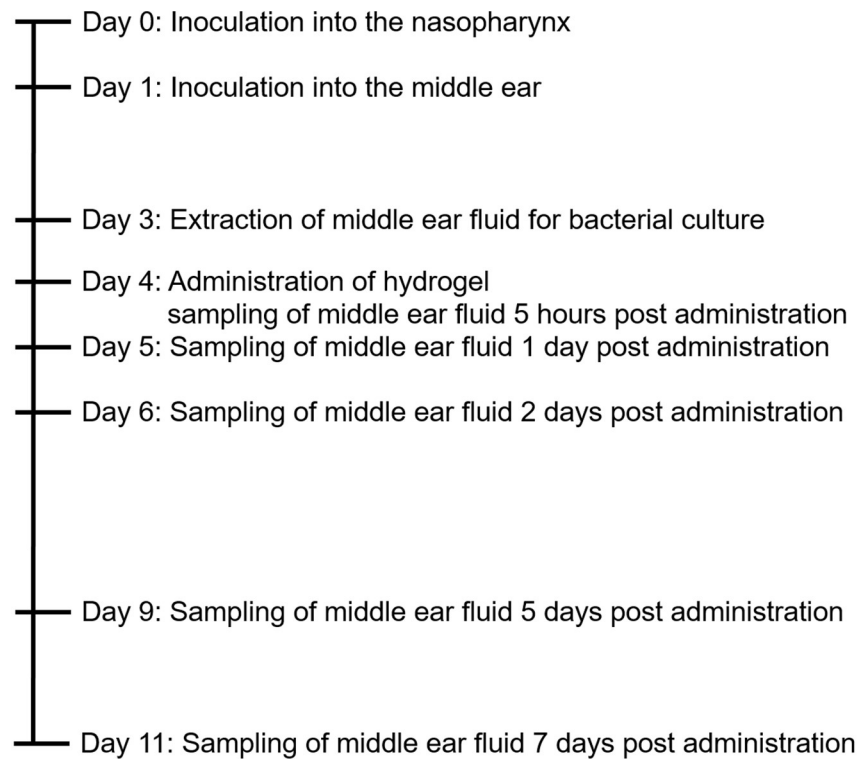


Fig. S4 Timeline of the in vivo procedures to induce and treat OM in chinchillas.

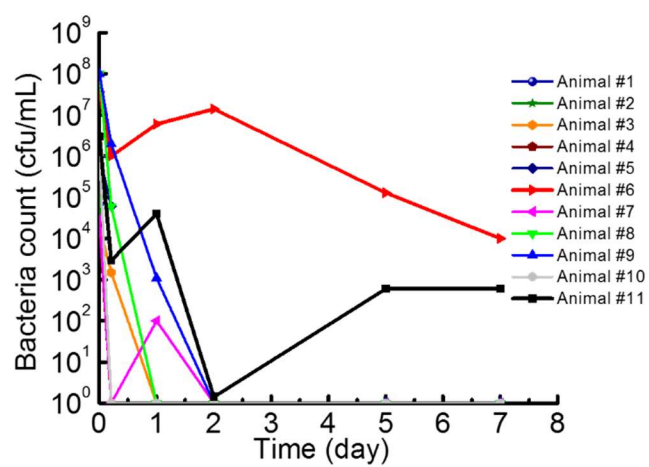


Fig. S5 Bacterial count in the middle ear fluid culture of individual animals treated with 4% Cip-3CPE-[P407-PBP].