## SUPPLEMENTARY DATA

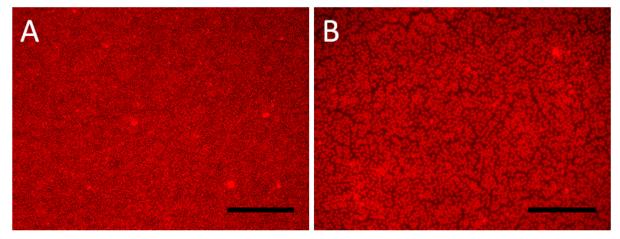
## Polymeric Multilayers that Localize the Release of Chlorhexidine from Biologic Wound Dressings

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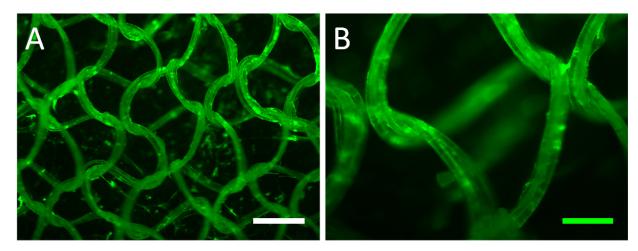
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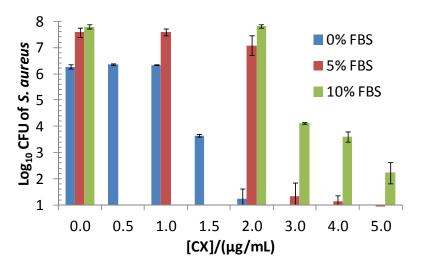
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**Supplementary Figure 1.** The incorporation of microspheres into the PEMs of  $(PAH/PAA)_{10}(crimson-PS)(CX/PAA)_{40}$  multilayers on PDMS stamp was confirmed by fluorescent imaging. Red= 2 µm diameter crimson-fluorescent PS microspheres. (A) Micrograph with scale bar=100 µm; (B) micrograph with scale bar= 50 µm.



Supplementary Figure 2. Biobrane is constructed of a thin silicone sheet partially embedded with a nylon fabric onto which purified peptides from porcine dermal collagen are chemically bonded. (A) Representative fluorescent micrograph of Biobrane, showing auto fluorescence (green) from the collagen coated nylon fibers. Scale bar=500  $\mu$ m; (B) magnified image with scale bar= 200  $\mu$ m.



**Supplementary Figure 3.** Dose dependent *in-vitro* antibacterial activity of chlorhexidine acetate solutions against *S. aureus* in HBSS without serum, or HBSS supplemented with 5% or 10% fetal bovine serum (FBS), over 24 h incubation period at 37°C. Data represent the mean  $\pm$  SEM (n $\geq$ 3) from one representative experiment that was repeated three times.