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Figure 1S. Images of bacterial cellulose with and without HMP, right and left film on each picture respectively.



В



**Figure 2S**. Surface analysis of SEM images for BC (left) and BC-HMP (right) films by histograms of grey distribution (top) and plot profile of the fibers (bottom).



Figure 3S. Weight loss kinetic of BC and BC-HMP films incubated at 37°C. All measurements were performed in triplicate showing a deviation lower that 10%.



Figure 4S. HSA fluorescence quenching by interaction with a range of Levo concentrations.



Figure 5S. XRD spectra for BC, HMP and BC-HMP.



**Figure 6S.** Antimicrobial activity against *S. aureus* of unloaded BC-HMP (left) and BC (right) films.

