

Core-shell electrospun polycaprolactone nanofibers, loaded with rifampicin and coated with silver nanoparticles, for tissue engineering applications

SUPPLEMENTARY MATERIAL

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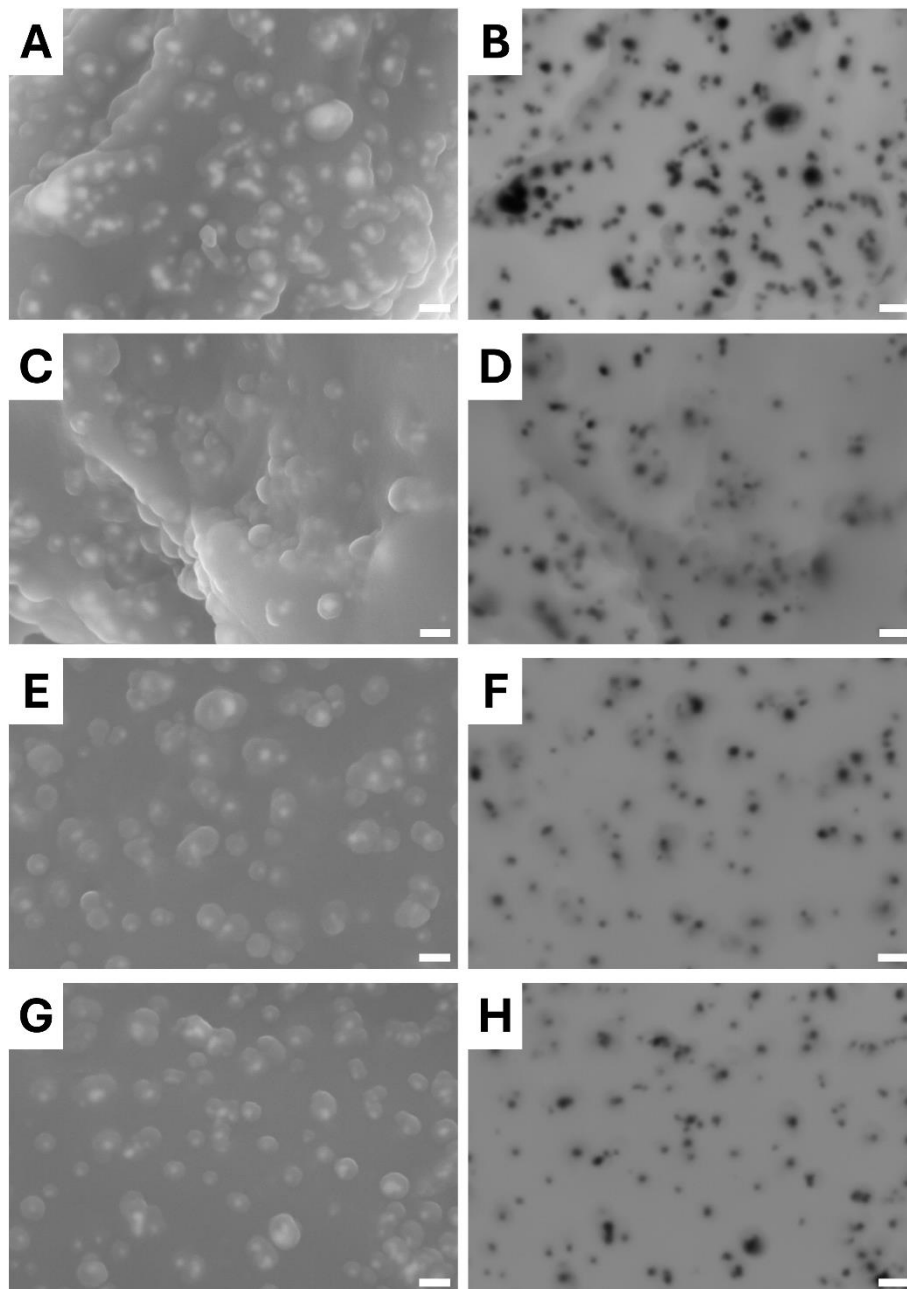


Figure S1. SEM (on the left) and TEM-like (on the right) images of the deposition of silver nanoparticles on PCL/Rif membrane. The scale bar is 100 nm.

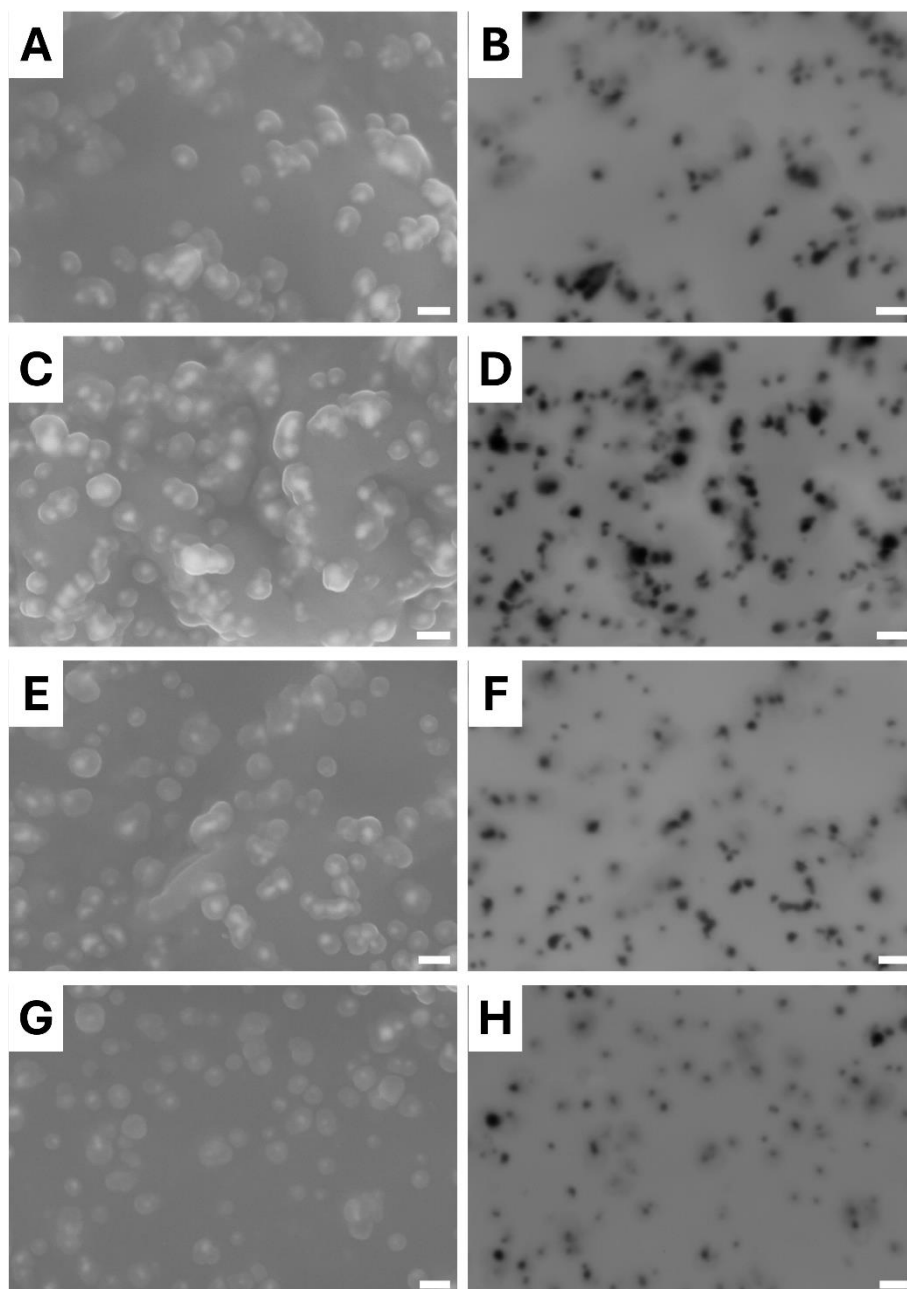


Figure S2. SEM (on the left) and TEM-like (on the right) images of the deposition of silver nanoparticles on PCL/Rif/plasma membrane. The scale bar is 100 nm.

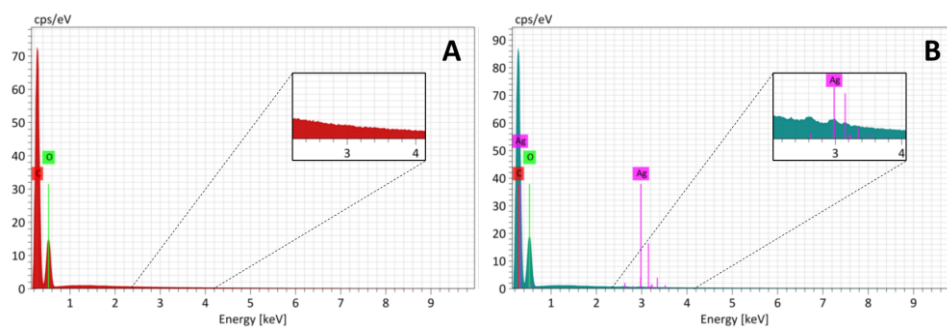


Figure S3. Evaluation of the presence of the silver nanoparticles without PDA. EDS spectra of PCL/Rif membrane (A) and PCL/Rif/plasma membrane (B).

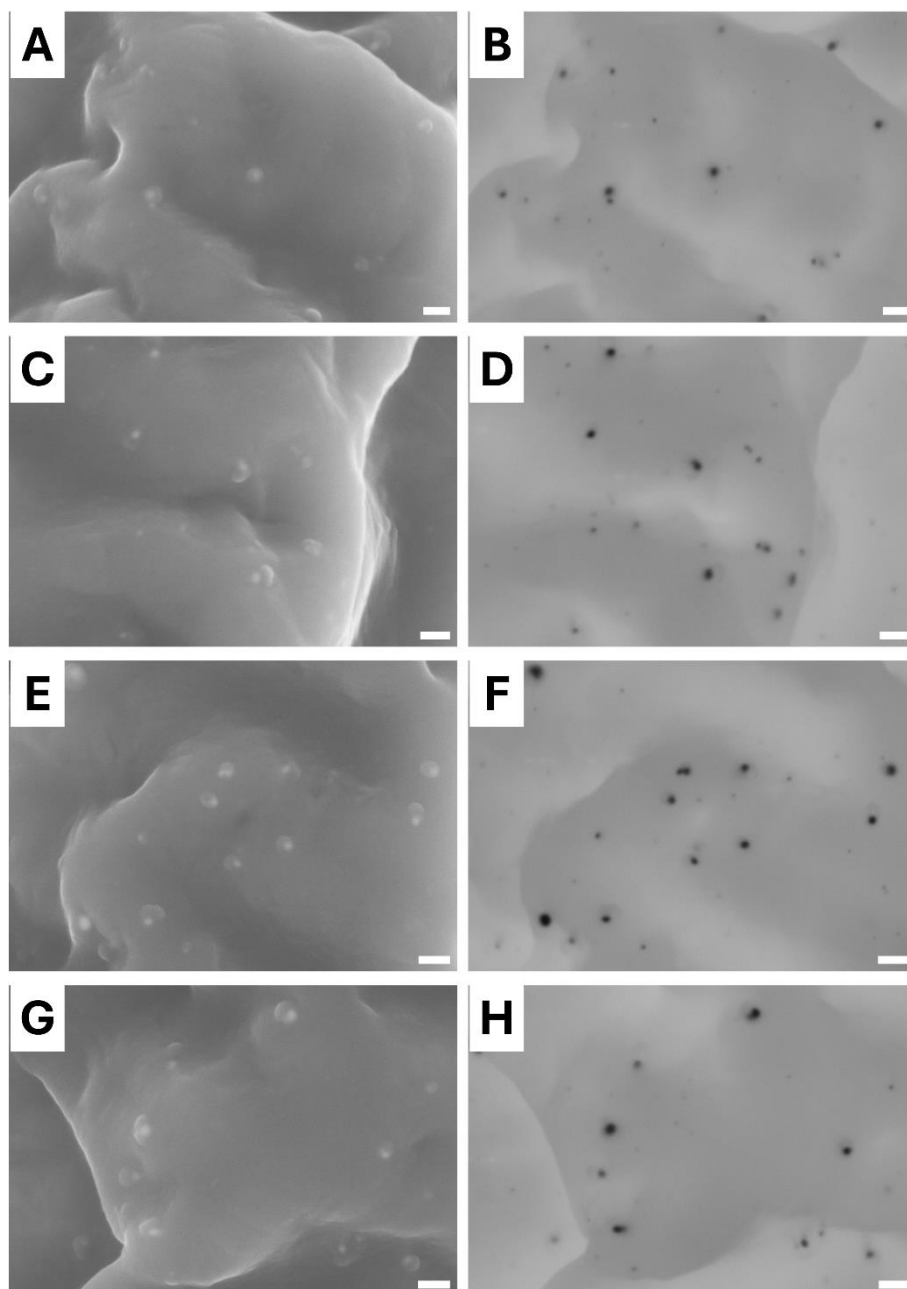


Figure S4. SEM images (on the left) and TEM-like images (on the right), obtained using the backscattered electrons in SEM analysis, of nAg on aged **PCL/Rif/nAg**. The scale bar is 100 nm.

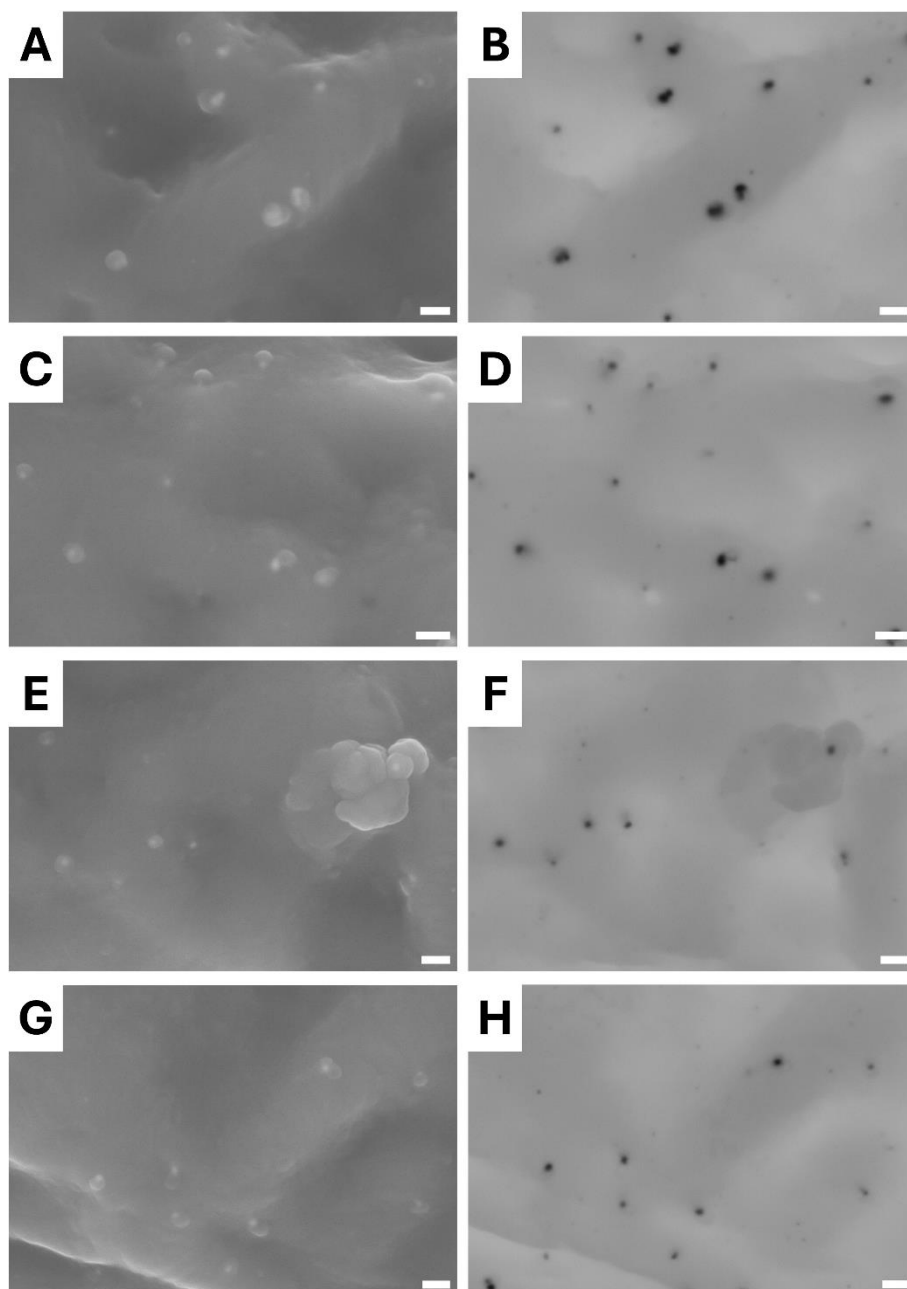


Figure S5. SEM images (on the left) and TEM-like images (on the right), obtained using the backscattered electrons in SEM analysis, of nAg on aged **PCL/Rif/plasma/nAg**. The scale bar is 100 nm.

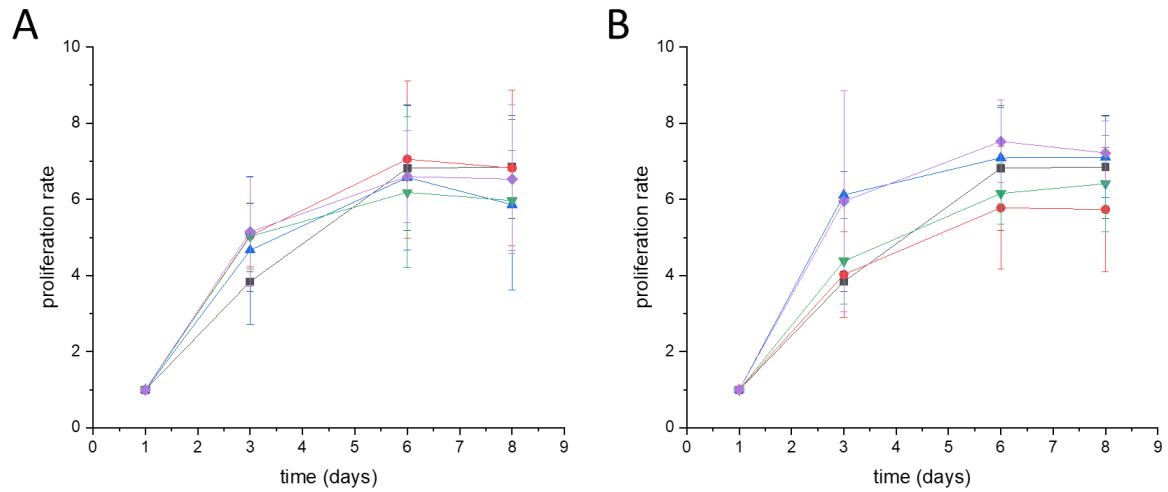


Figure S6. Proliferation rate of NIH-3T3 cells cultured in the presence of not treated- (A) or plasma treated- membranes (B). The proliferation rates are reported for control cells (gray square) and for cells grown in the presence of PCL (red circles), PCL/Rif (blue triangles), PCL/nAg (green triangles) and PCL/Rif/nAg (magenta diamonds).

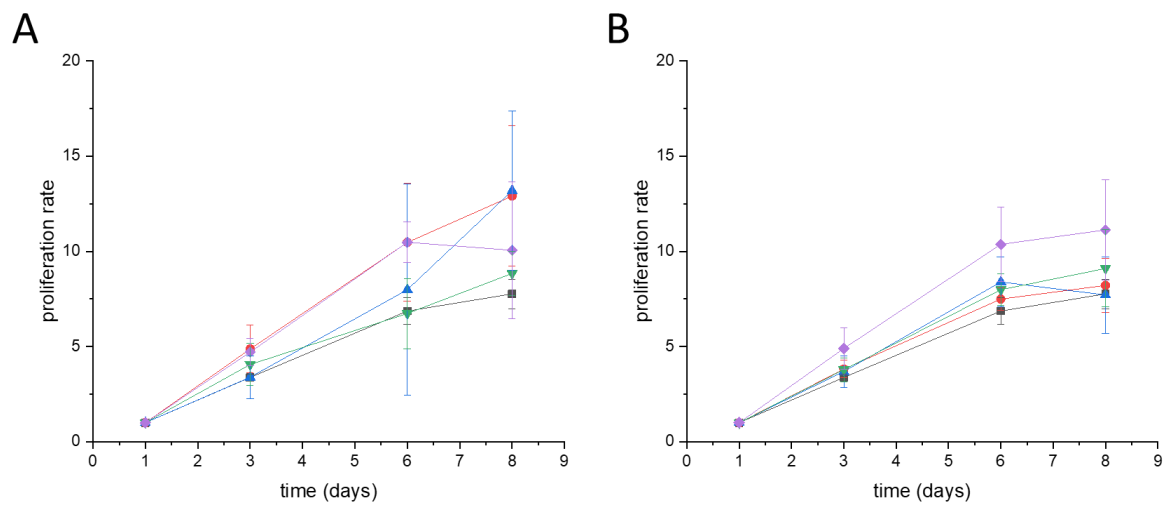


Figure S7. Proliferation rate of MG-63 cells cultured in the presence of not treated- (A) or plasma treated- membranes (B). The proliferation rates are reported for control cells (gray square) and for cells grown in the presence of PCL (red circles), PCL/Rif (blue triangles), PCL/nAg (green triangles) and PCL/Rif/nAg (magenta diamonds).

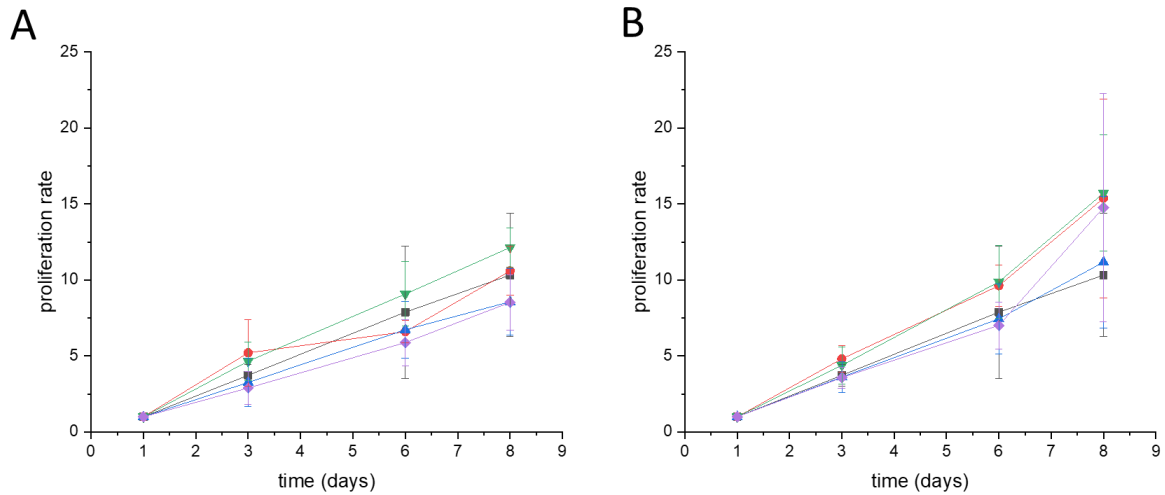


Figure S8. Proliferation rate of UCs cells cultured in the presence of not treated- (A) or plasma treated- membranes (B). The proliferation rates are reported for control cells (gray square) and for cells grown in the presence of **PCL** (red circles), **PCL/Rif** (blue triangles), **PCL/nAg** (green triangles) and **PCL/Rif/nAg** (magenta diamonds).

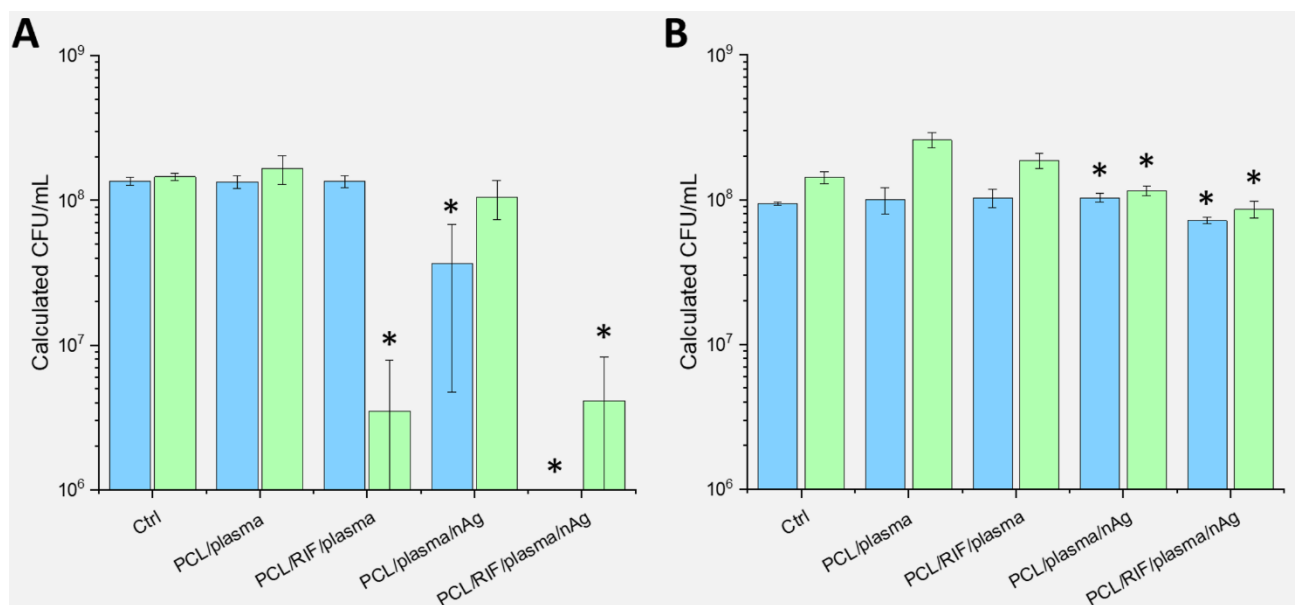


Figure S9. Inhibition of bacterial growth expressed as CFU/mL. Proliferation of *E. coli* ATCC 25922 (blue) and *S. aureus* ATCC 25923-(green) in the presence of freshly prepared membranes (A) and 1-week aged membranes (B). The Ctrl indicates bacterial growth without membranes. Statistically significant differences between the treatments and the Ctrl group for each bacterial strain (Kruskal–Wallis and Mann–Whitney U) are marked with an asterisk (*), $p < 0.05$. The data are expressed as CFU/mL, calculated from the data of **Figure 9**.