Slippery Liquid-Infused Porous Surfaces that Prevent Microbial Surface Fouling and Kill Non-Adherent Pathogens in Surrounding Media: A Controlled Release Approach

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Supporting Information

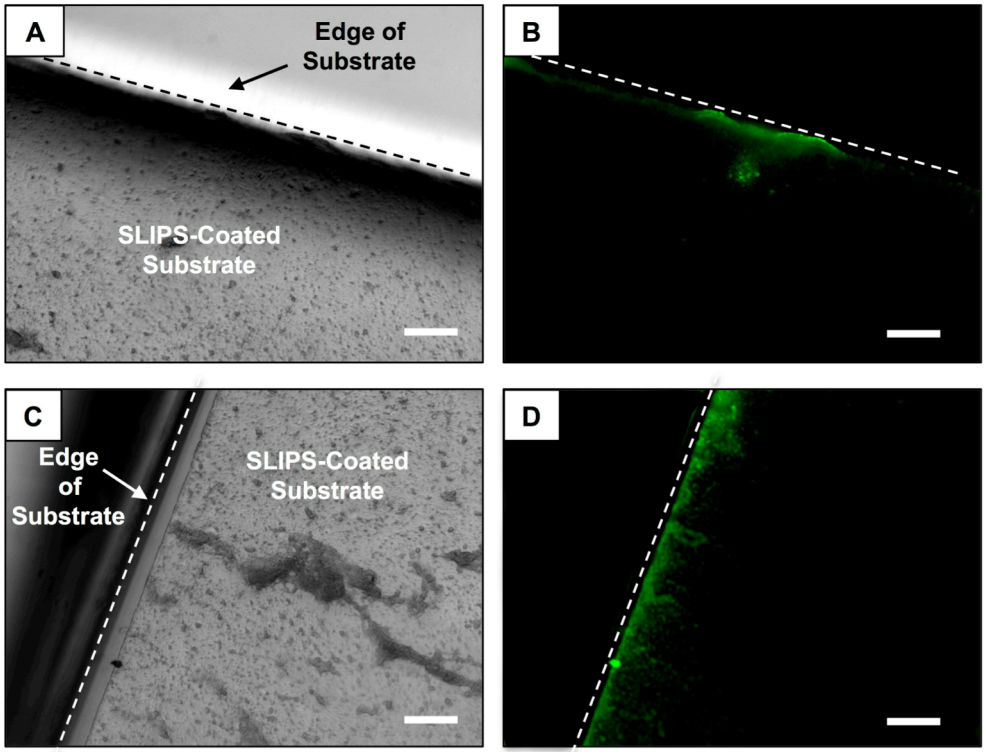

Figure S1: (A-D) Representative bright-field (A,C) and fluorescence (B,D) microscopy images showing the edges of SLIPS-coated glass substrates incubated in the presence of *C. albicans* for 24 hours (see text for additional details of these experiments). Samples were stained with FUN-1 fluorescent dye prior to imaging, and show small and isolated patches of biofilm (green) located along the edges and corners of the coated substrates. The approximate locations of the edges of the substrates are indicated with black or white dotted lines. Scale bars = 100 μm.

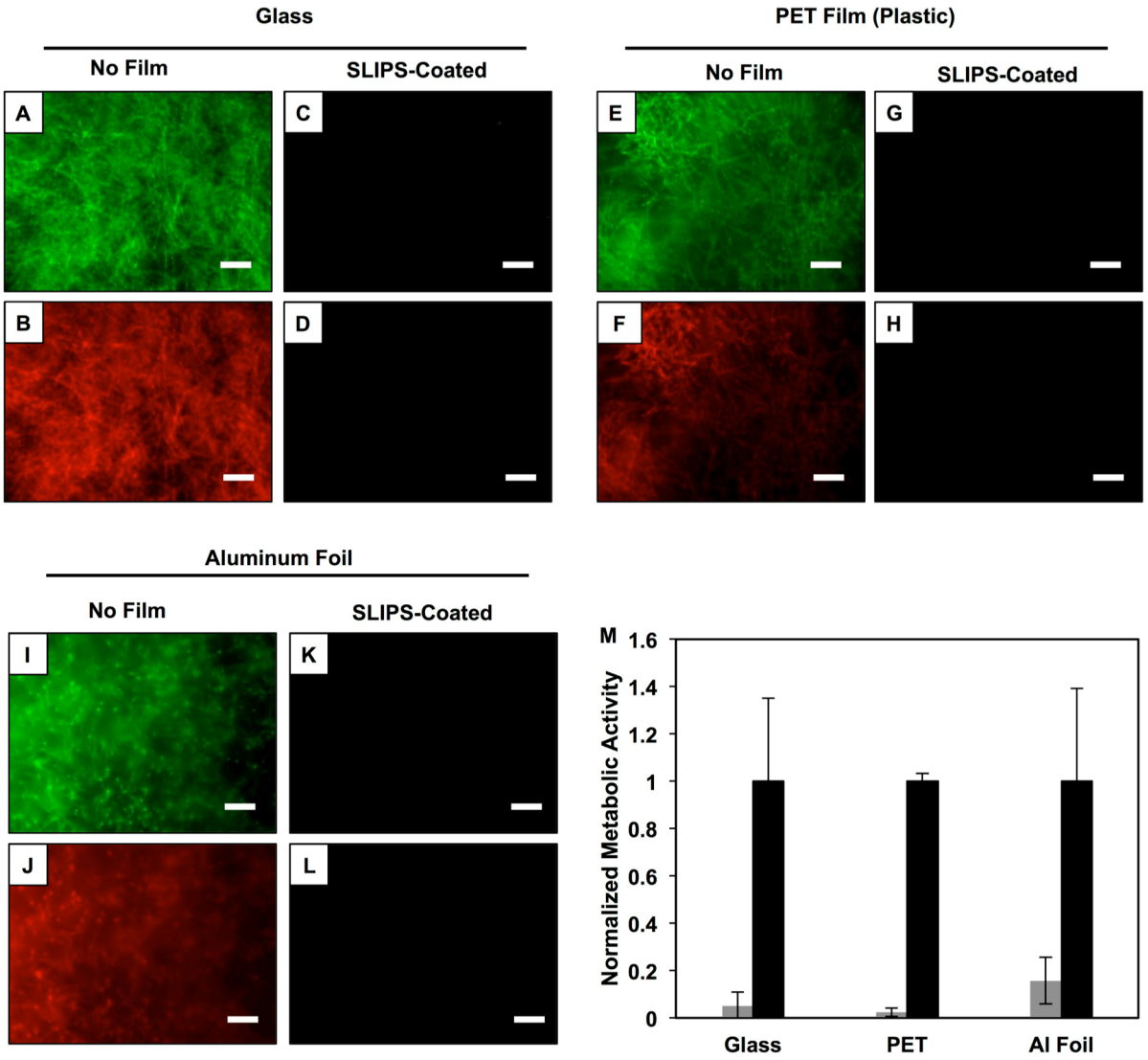

Figure S2: (A-L) Representative fluorescence microscopy images of substrates incubated in the presence of *C. albicans* for 24 hours (see text for additional details). Samples were stained with FUN-1 fluorescent dye prior to imaging; green indicates cytoplasmic staining and red indicates intravacuolar structures in live cells. The images show results for both bare and SLIPS-coated glass substrates (A-D), plastic PET film substrates (E-H), and aluminum foil substrates (I-L). Scale bars are 100 μm. (M) Plot showing the quantified metabolic activity of *C. albicans* on bare and SLIPS-coated glass, PET, and aluminum foil substrates after immersion in suspensions of *C. albicans* for 24 hours; metabolic activity was quantified using an XTT assay. Error bars represent standard deviation.

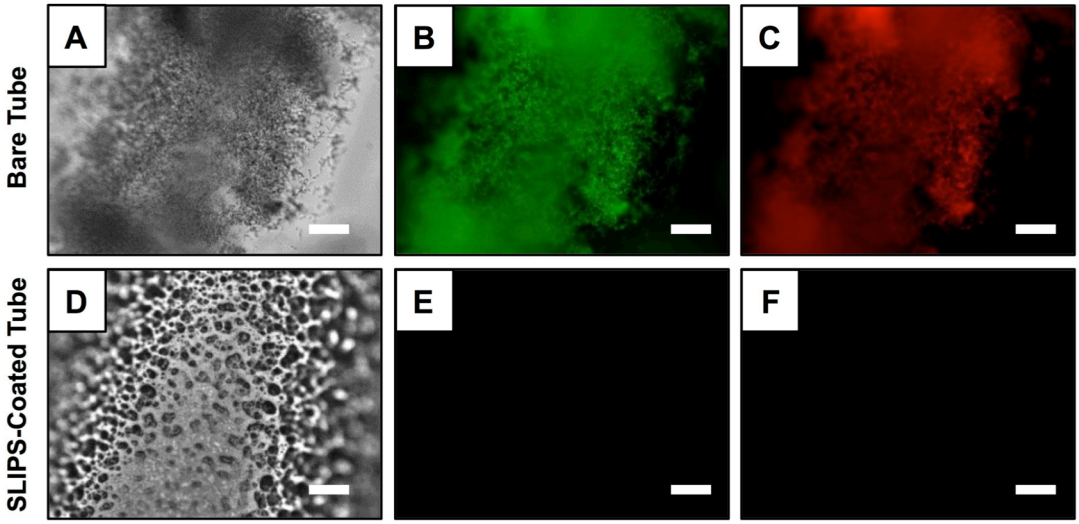

Figure S3: Representative bright-field (A,D) and fluorescence (B-C, E-F) microscopy images showing the inner surfaces of bare and SLIPS-coated PTFE tubes incubated with *C. albicans* inocula for 4 hours. Samples were stained with FUN-1 fluorescent dye prior to imaging; green indicates cytoplasmic staining and red indicates intravacuolar structures in live cells. The textures observed in panel D arise from the features of the polymer coating and, as indicated by the results in panels E-F, do not arise from the presence of biofilm. Scale bars are 100 μm.

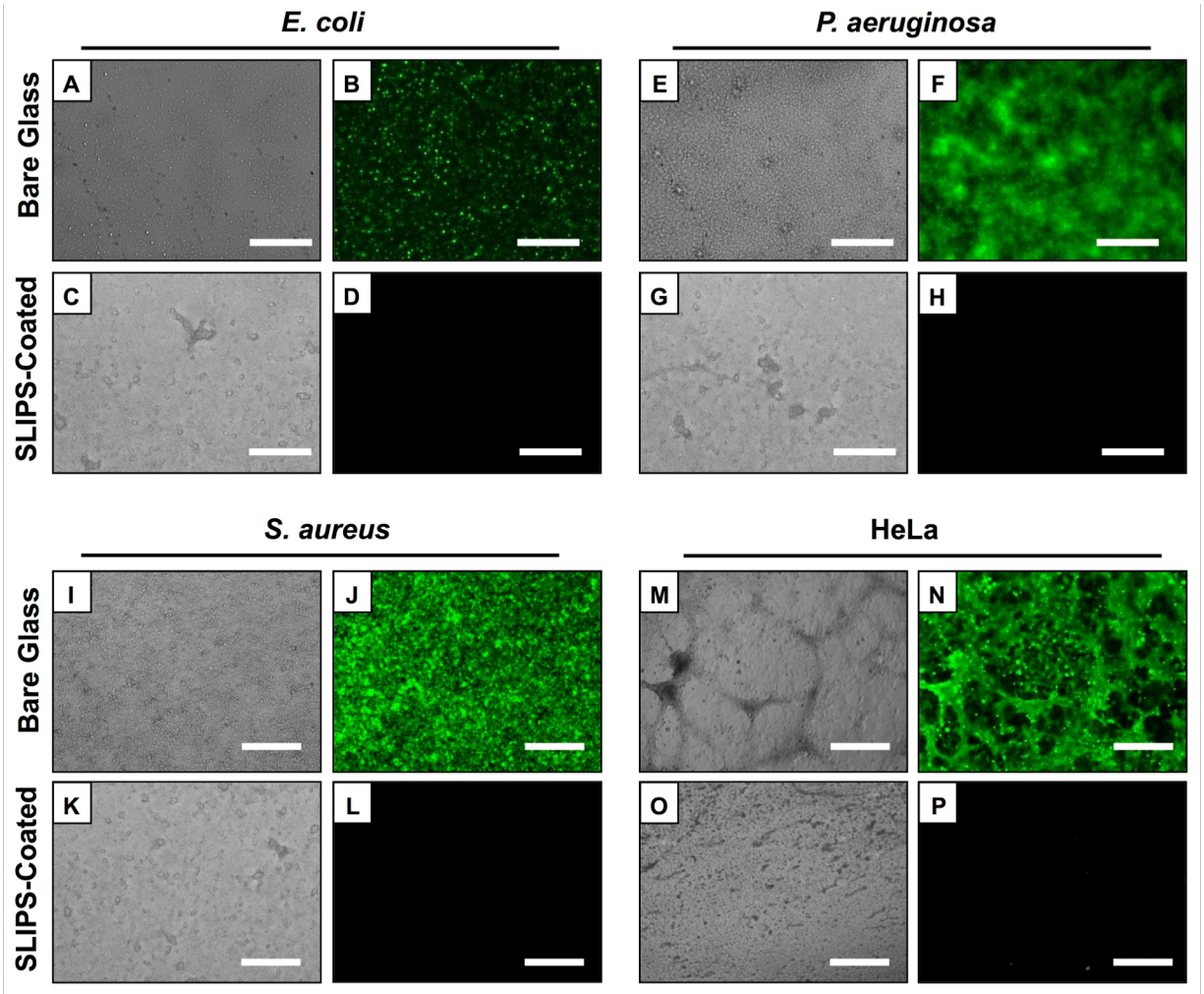

Figure S4: (A-P) Representative bright-field and fluorescence microscopy images showing bare glass and SLIPS-coated glass substrates incubated in the presence of *E. coli, P. aeruginosa, S. aureus,* or mammalian HeLa cells (see text for additional details). Scale bars are 100 μm. Films were incubated in the presence of bacteria (A-L) for 24 hours and then treated with SYTO-9 green fluorescent nucleic acid stain prior to imaging. Films were incubated in the presence of mammalian cells (M-P) for 72 hours and stained with calcein-AM prior to imaging.

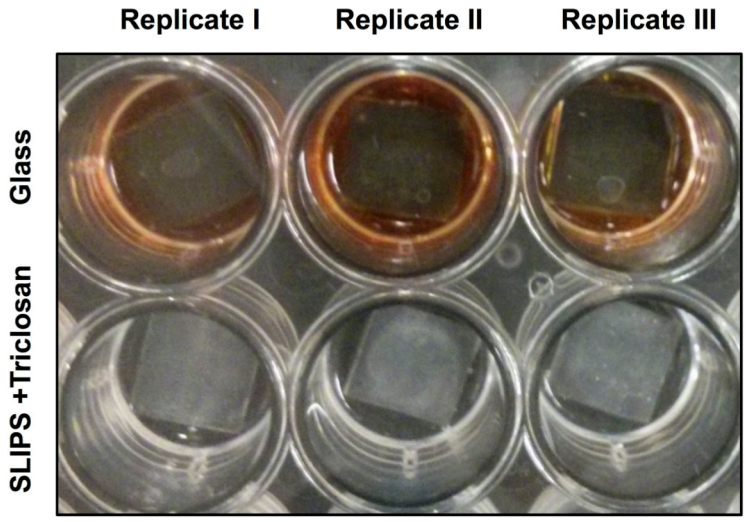

Figure S5: Digital photographs providing a visual indication of relative levels of metabolic activity exhibited by *C. albicans* biofilms formed in the presence of bare glass (top) or triclosan-loaded, SLIPS-coated glass substrates (as determined by an XTT assay; three replicates are shown). The intensity of the orange color indicates relative levels of metabolic activity.