pharmaceutics

MDPI

Supplementary Materials: 3D Printed Microfluidic Devices for Drug Release Assays

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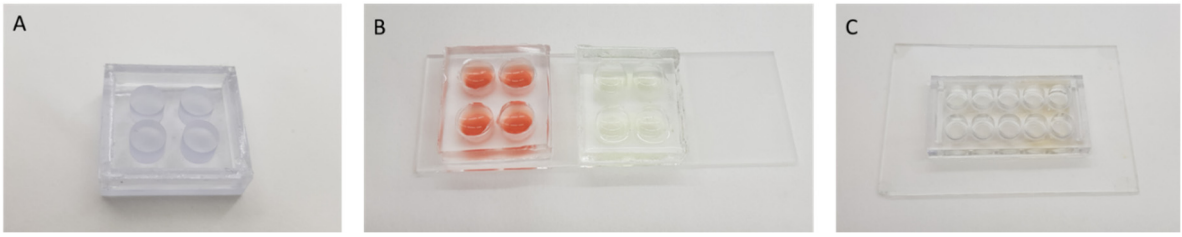

Figure S1. A fast and effective way to fabricate a resin and a PDMS based device by 3D printed mold. (**A**) A 3D printed mold of 96-well dimension printed using a 3D printer. The PDMS resin is poured into the pattern framework and after overnight crosslinking process the PDMS gently peeled from the framework and went through O_2 plasma bonding machine for final glass bonding. (**B**) 150 µl of 6-coumarin and doxorubicin solutions placed inside the wells for 24 h incubation in 37 °C. (**C**) Freeprint® molds printed on glass slides. The wells were designed to contain the exact dimensions of wells in 96-well plates.

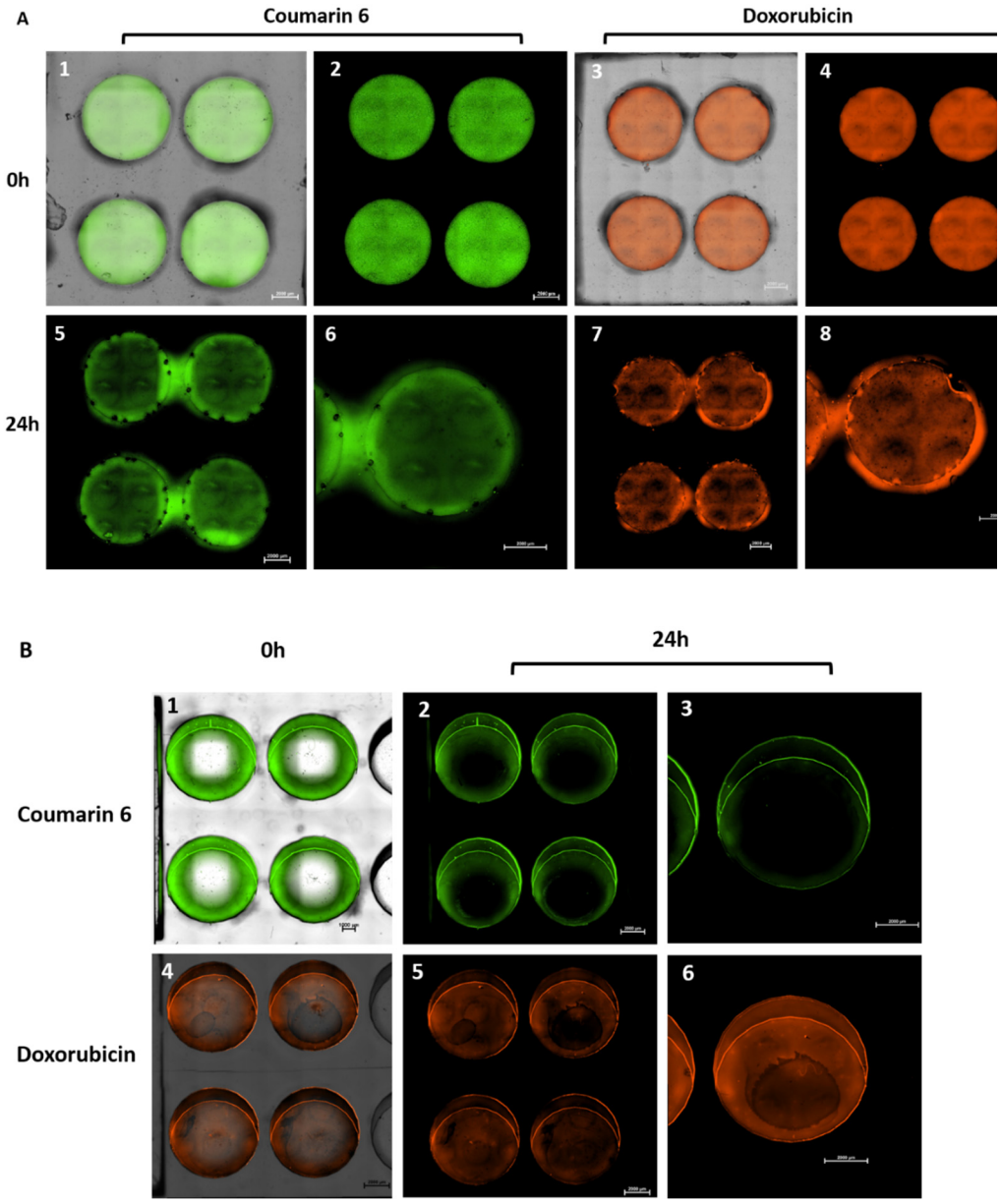

Figure S2. Bright-field light and fluorescence microscopy images of PDMS (**A**) and 3D printed (**B**) molds of wells containing solutions of 6-coumarin (GPF, green) and doxorubicin (CY3, orange). 150µl of 6-coumarin (hydrophobic) and doxorubicin (hydrophilic) solutions placed in 96-well designs of either a PDMS or a 3D printed mold for 24 h incubation in 37 °C. (**A**) Fluorescence images (5,6,7,8) of PDMS mold shows a significant absorption of both molecules to the PDMS substrate. (**B**) Fluorescence images (4,5,6) of 3D printed resin mold shows no absorption of both 6-coumarin and doxorubicin after 24 h. (scale bar— 2000 µm).