Supporting Information

Digitally-programmable manufacturing of living materials grown from biowaste

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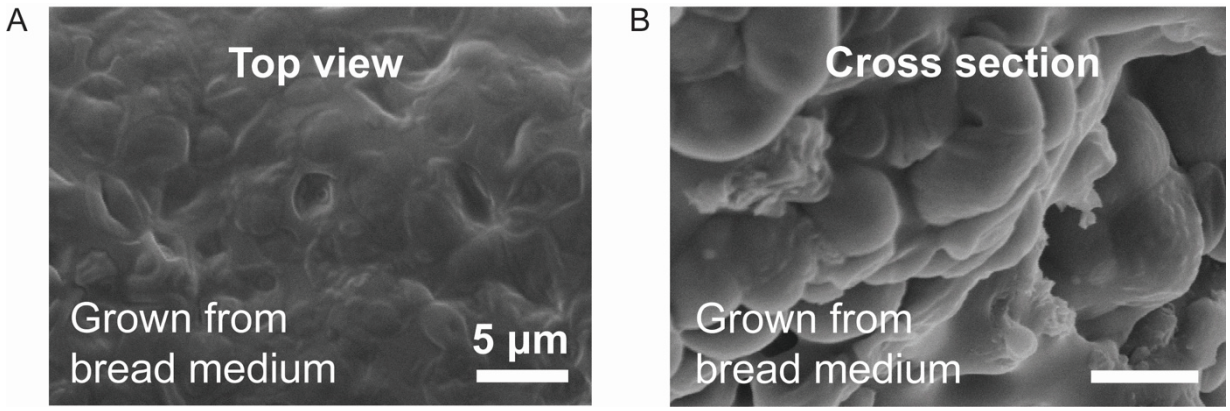

Figure S1. SEM images show the zoom-in A) top view and B) cross-section view of the dried living materials after growth.

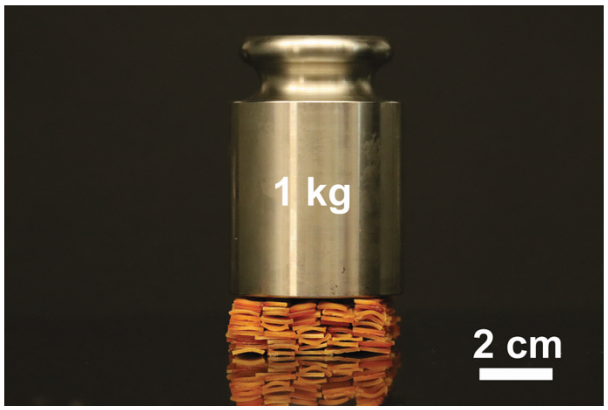

Figure S2. The 3D structure assembled by grown dried living materials can support a 1 kg weight.

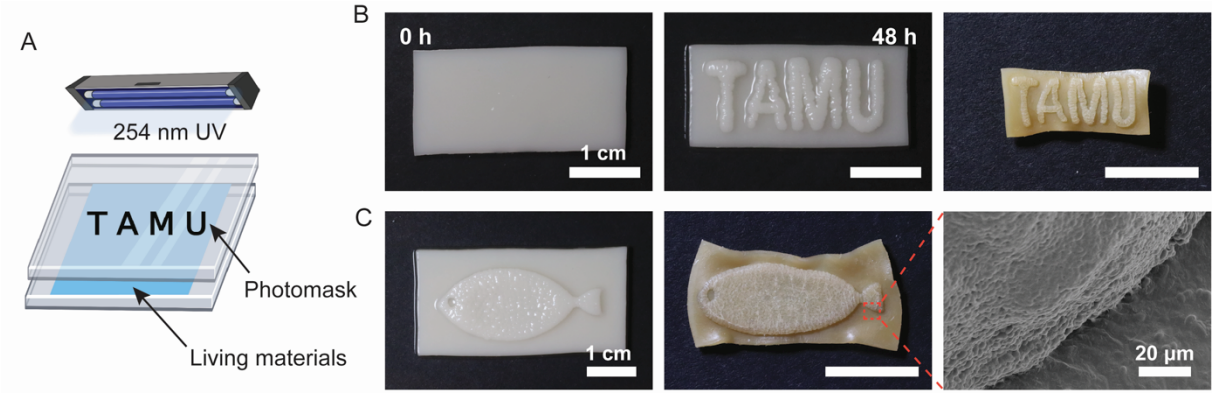

Figure S3. A) An illustration shows the UV photopatterning of the living materials. B) Photographs of the living materials patterned with "TAMU" before and after growth, and the final dry product. C) Photographs and SEM image of the living materials patterned with a fish shape. n ≥ 3.

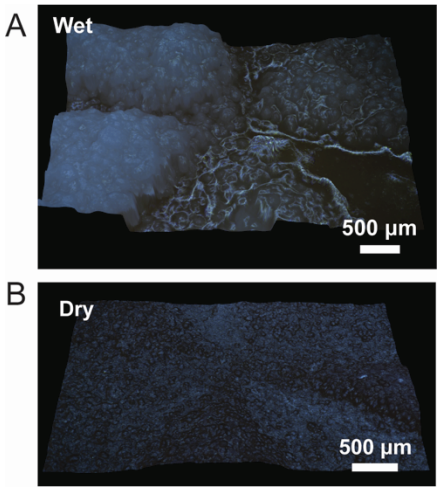

Figure S4. Z stack optical microscopy images show the zoom-in surface topography of the grown living material film at an intersection point A) in the wet state and B) in the dry state. n ≥ 3.

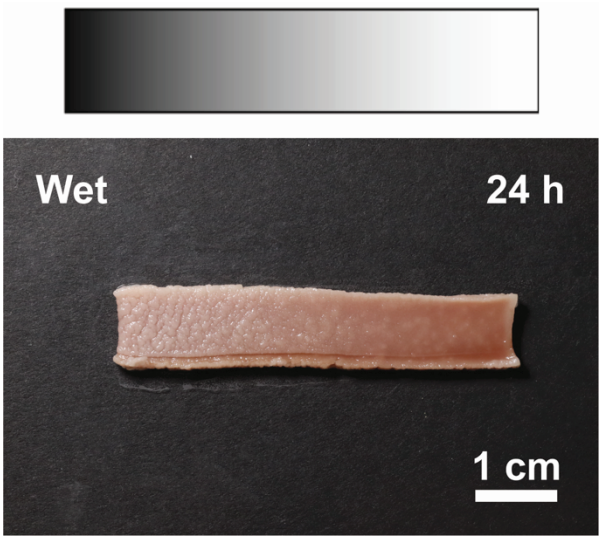

Figure S5. The growth behavior of a living material strip cultured for 1 day after 20-min exposure of projector light using a grayscale image as template (n=3).

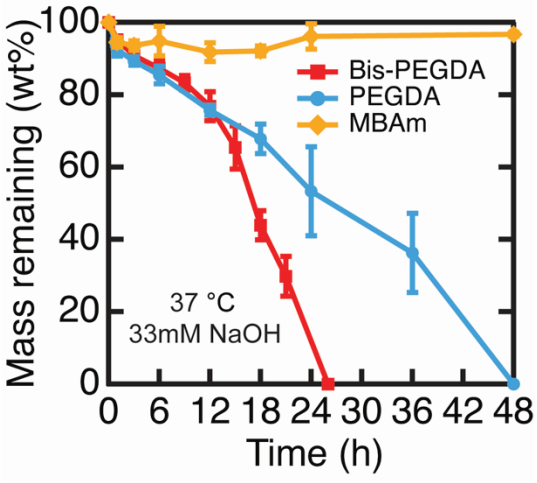

Figure S6. Degradation behavior of the three different kinds of living materials before growth in a 33 mM NaOH solution as a function of time at 37 °C (n ≥ 10).

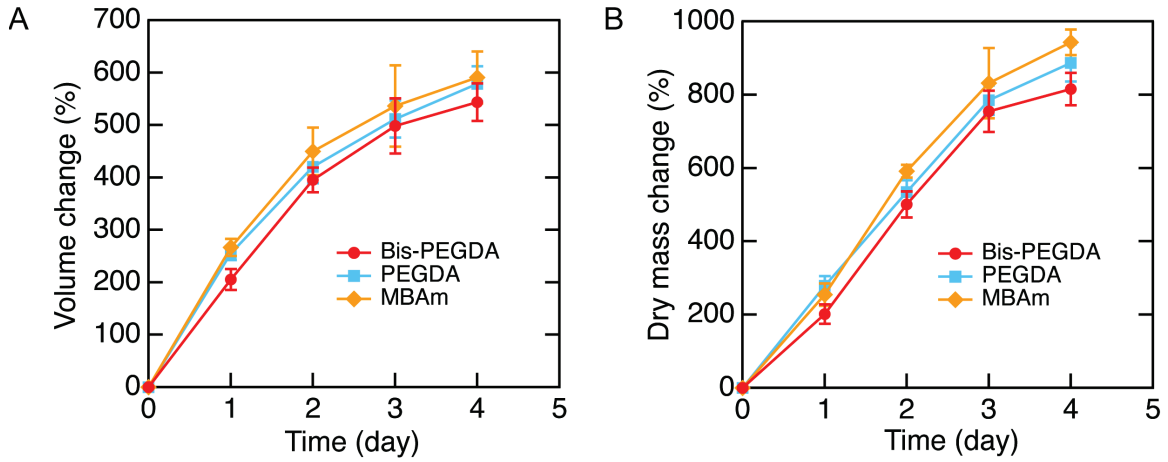

Figure S7. A) Volume change and B) dry mass change of the living materials with different crosslinkers cultured in bread waste media for 4 days ($n \geq 10$).