Electronic Supplementary Material (ESI) for Biomaterials Science.

Glycerylphytate as ionic crosslinker for 3D printing of multi-layered scaffolds with improved shape fidelity and biological features

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Supplementary Information

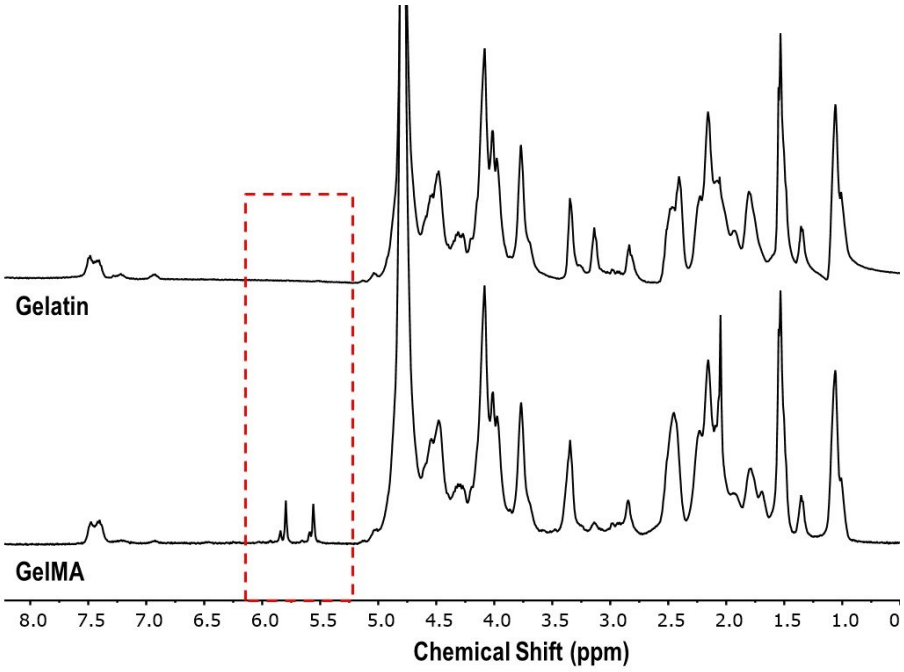

Figure S1. ^{1}H-RMN spectra of gelatin and GelMA recorded in D_2O at 37 ºC. Degree of methacrylation was calculated taking into consideration the methacrylate signals that appeared at a chemical shift of 5.8 and 5.6 ppm, which were normalized against the aromatic signals of phenylalanine at 7.4 ppm [1].

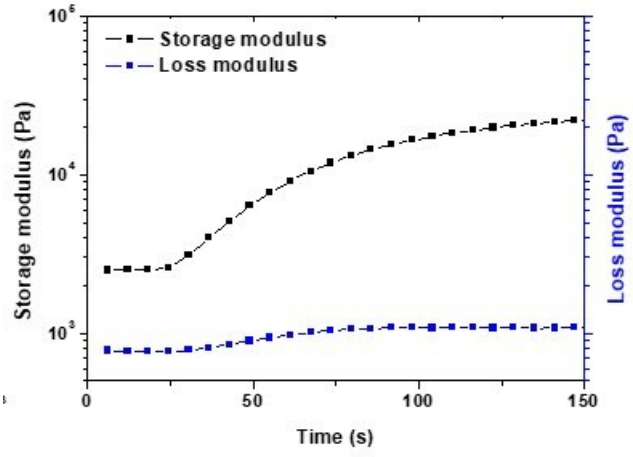

Figure S2. *In situ* photoinitiated crosslinking of the gel followed by rheology. The curves show the changes in the storage (black squares) and loss (blue squares) moduli of the gel during light exposure.

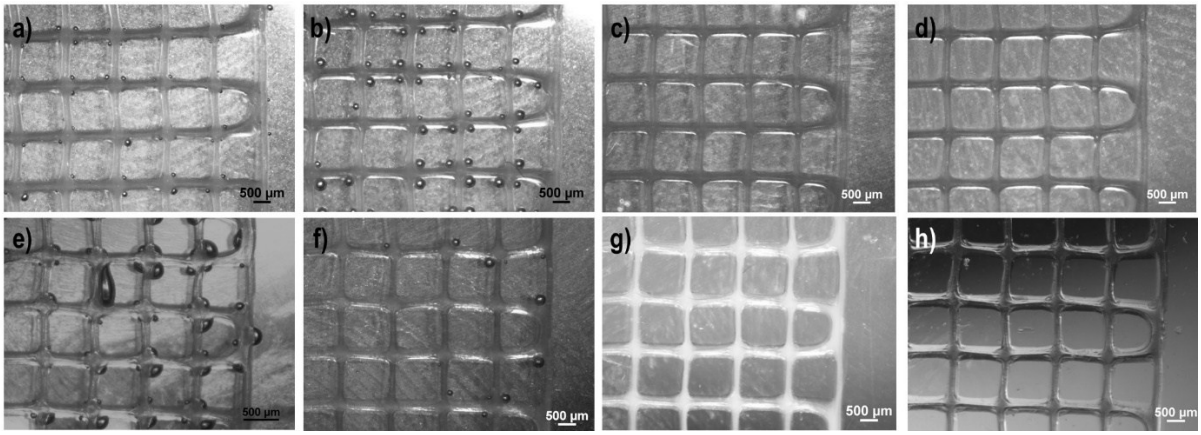

Figure S3. Qualitative examination under light microscopy of swelling for G_1Phy (a-d) and TPP (e-h) printed scaffolds at different times of incubation in PBS at 37 ºC (2, 4, 7 and 10 days).

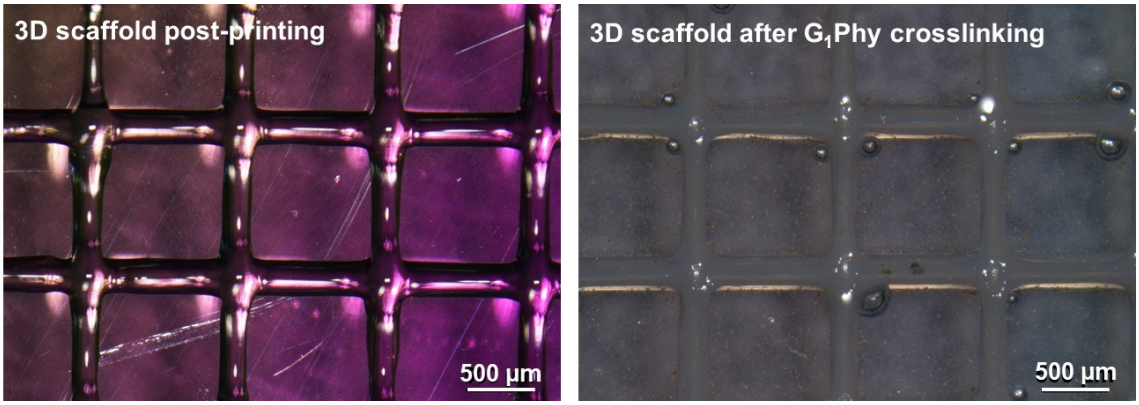

Figure S4. Light microscope images of a 3D printed scaffold after printing-photopolymerization process, and after ionic crosslinking with G_1Phy

References

1. M. Bartnikowski, R. Wellard, M. Woodruff and T. Klein, *Polymers*, 2015, **7**, 1539.