Supporting information

Injection Moulded Polymeric Micropatterns for Bone Regeneration Study

E. Zanchetta[1], *E. Guidi*[2], *G. Della Giustina*[1], *M. Sorgato*[1], *M. Krampera*[3], *G. Bassi*[3], *R. Di Liddo*[2], *G. Lucchetta*[1], *M.T. Conconi*[2], *G. Brusatin*[1,*]

[1] Department of Industrial Engineering, University of Padua , Padua 35131 , Italy

*e-mail: giovanna.brusatin@unipd.it

[2] Department of Pharmaceutical and Pharmacological Sciences, University of Padua , Padua 35131, Italy

[3] Section of Hematology, Department of Medicine, University of Verona , Verona 37129 , Italy

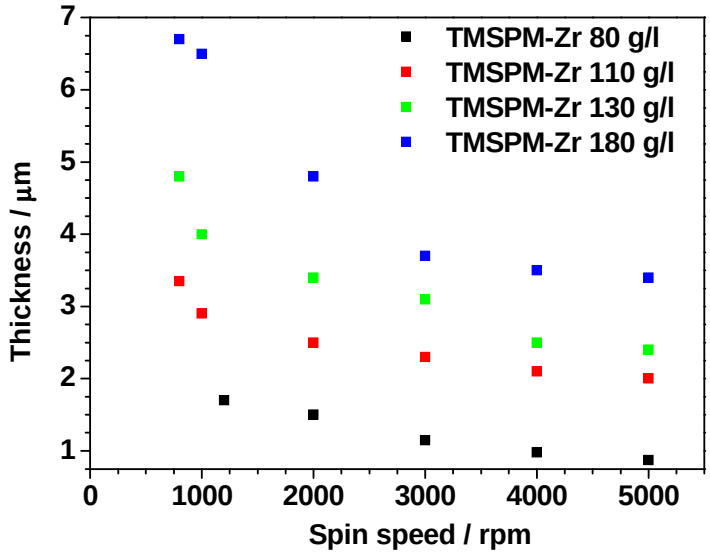
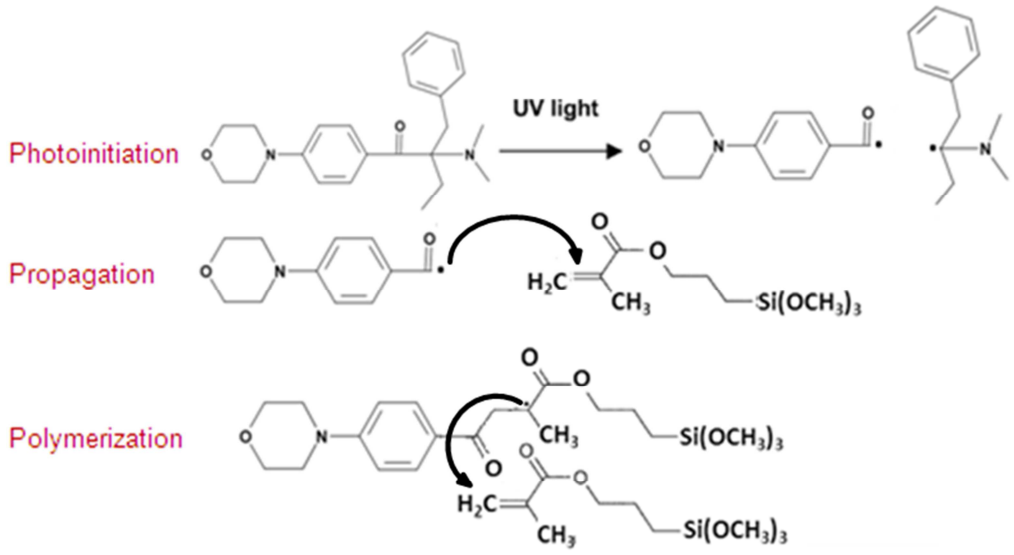


Figure S1. Spin-speed curves of differently diluted TMSPM-Zr solutions



Scheme S1. Photopolymerization process of TMSPM with the addition of Irgacure 369

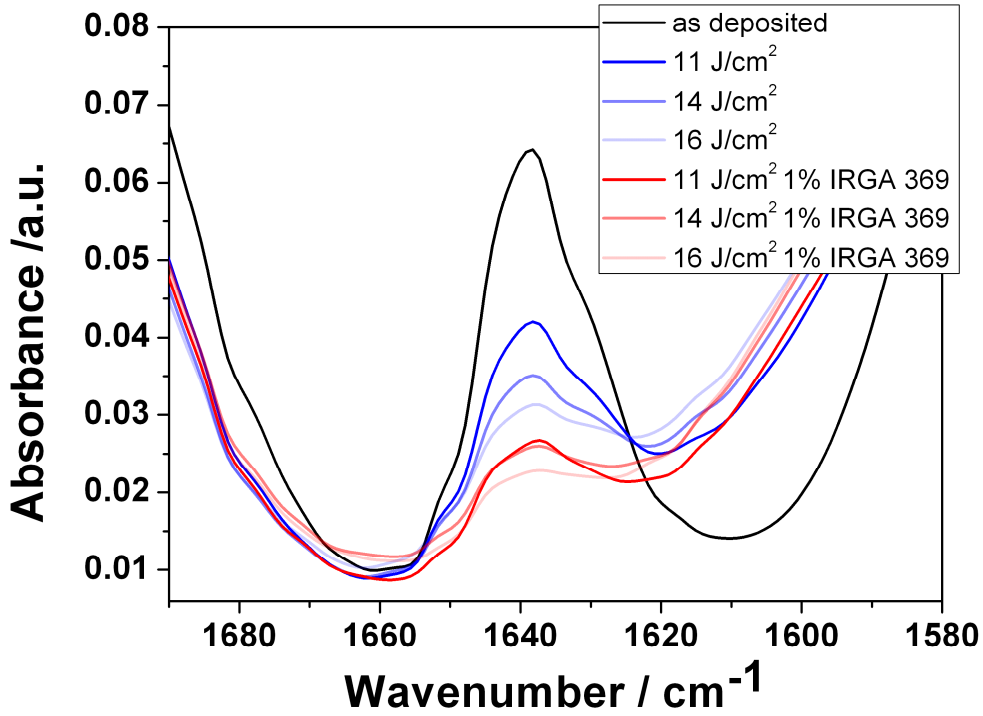


Figure S2. Comparison of the C=C photo-polymerization without photoinitiator (blue lines) and with the addition of Irgacure 369 1% molar with respect to TMSPM (red lines)

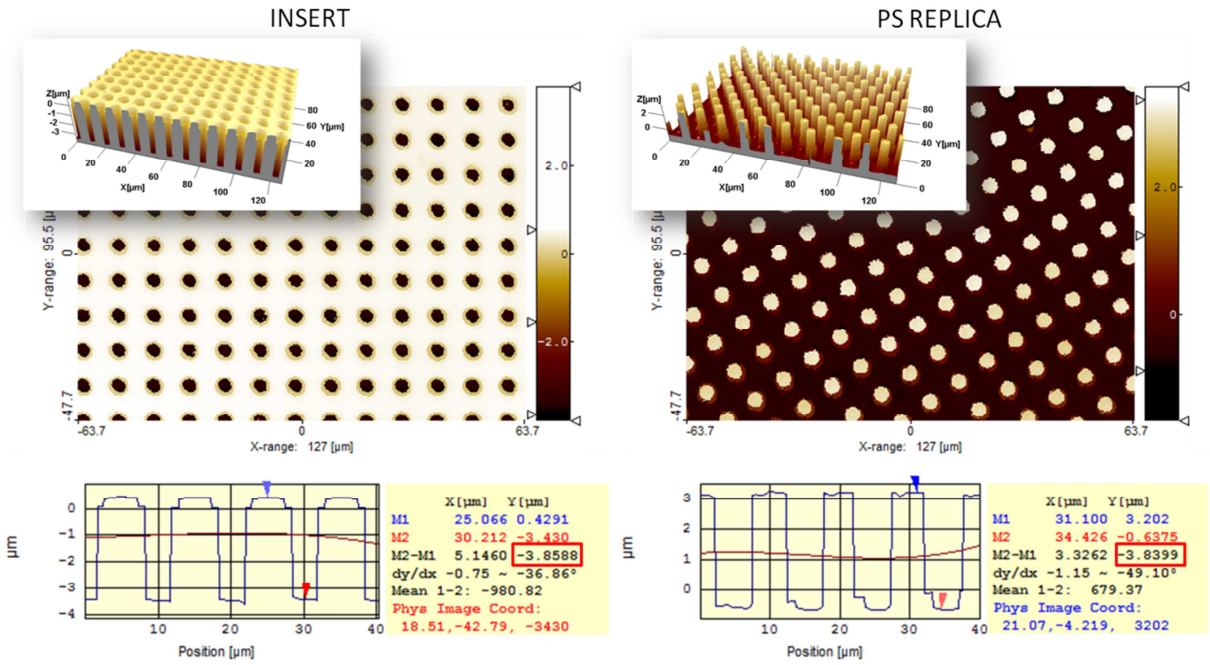


Figure S3. Example of 3D optical profiler image of the insert (left) and of the respective PS replica (right)

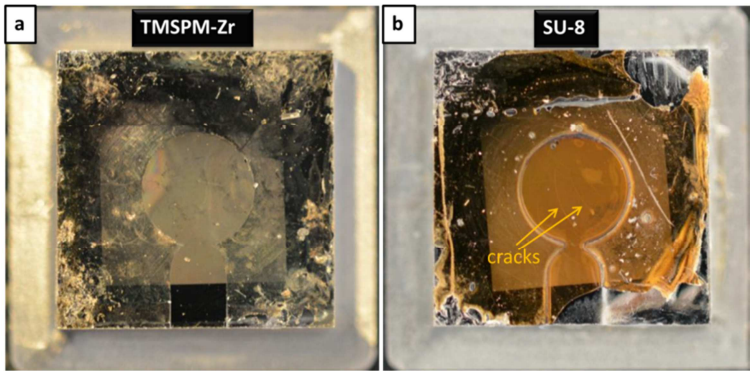


Figure S4. Micro-patterned stamps for micro-injection moulding obtained in (a) TMSPM-Zr and (b) SU8-2100 negative photoresist (MicroChem, Newton, MA) obtained according to manufacturer's instructions, after injection moulding at 90°C. While TMSPM-Zr stamp withstands at least 300 cycles at 90°C, SU8-2100 photoresist shows cracks formation after 50 injection moulding cycles.

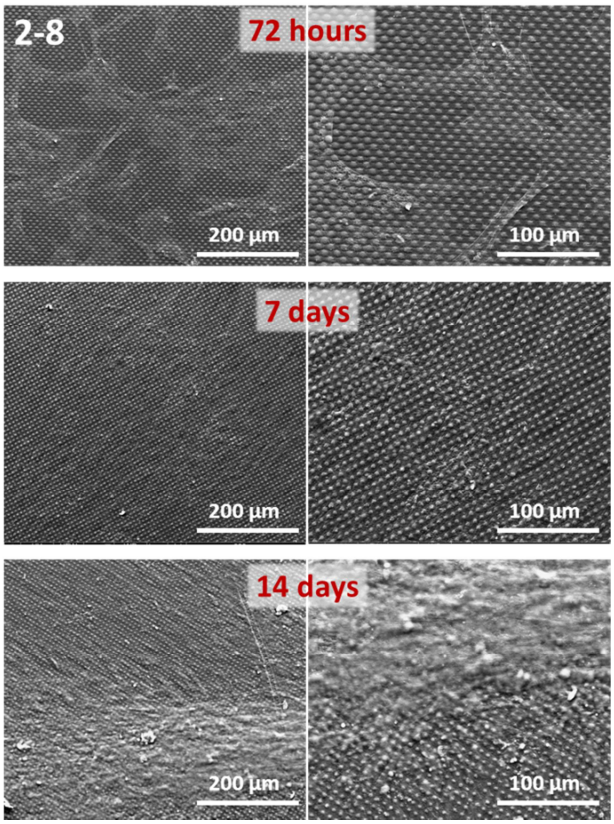


Figure S5. Cell proliferation at 72 hours, 7 and 14 days after seeding on 2-8 pillar-structured polystyrene surfaces: cells stratified after 7 days of proliferation