Supporting Information

Novel PVAMA/GelMA aerogels prepared by liquid-phase collection of photoinitiated polymerisation: injectable and flowable low-density 3D scaffolds for bone regeneration

Manxuan Liu,[a,1] *Yihan Sun,*[b,c,1] *Lijun Liu,*[a] *Zhiying Zhang,*[a] *Maierhaba Aimaijiang,*[a] *Lu Zhang,*[a] *Sezhen Quni,*[a] *Minghui Li,*[a] *Xiuyu Liu,*[a] *Daowei Li,*[a] *Junhu Zhang,*[*,b,c] *and Yanmin Zhou*[*,a]

a.Jilin Provincial Key Laboratory of Tooth Development and Bone Remodeling, Hospital of Stomatology, Jilin University, 763 Heguang Road, Changchun 130021, P. R. China

b.Joint Laboratory of Opto-Functional Theranostics in Medicine and Chemistry, The First Hospital of Jilin University, 1 Xinmin Street, Changchun 130021, P. R. China

c.State Key Laboratory of Supramolecular Structure and Materials, College of Chemistry, Jilin University, 2699 Qianjin Avenue, Changchun 130012, P. R. China

1. These authors contributed equally to this work

*. Corresponding author

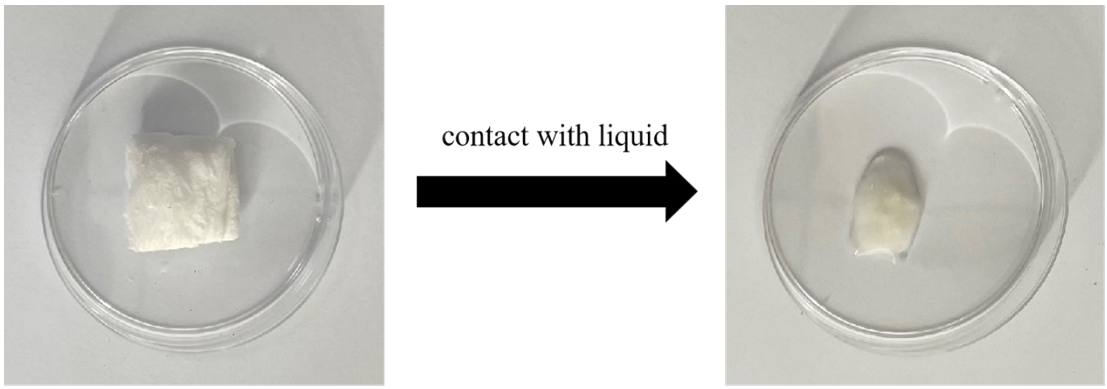

Figure S1. Changes in LPPI-AG scaffold before and after contact with solution.

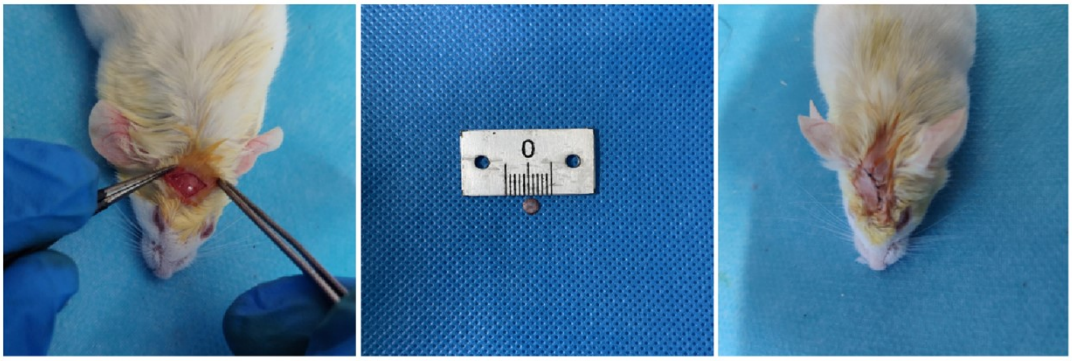

Figure S2. Establishment of a mouse skull defect model with a diameter of 4mm.

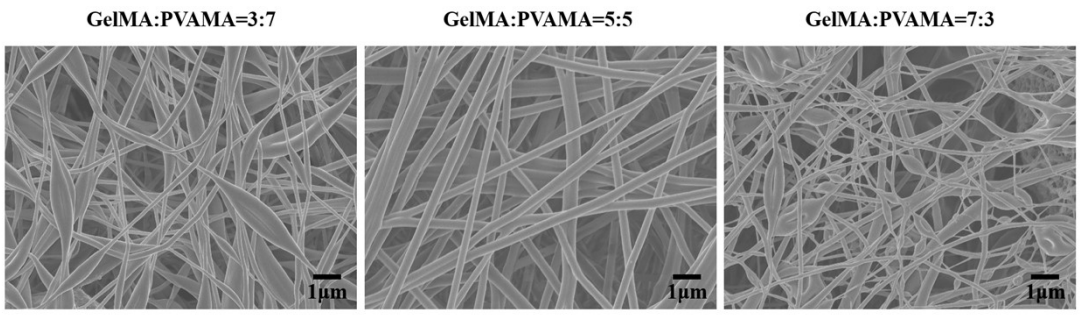

Figure S3. SEM Diagram of GelMA: PVAMA Spinning with Different Proportions.

Figure S4. New aerogel placed on feathers.

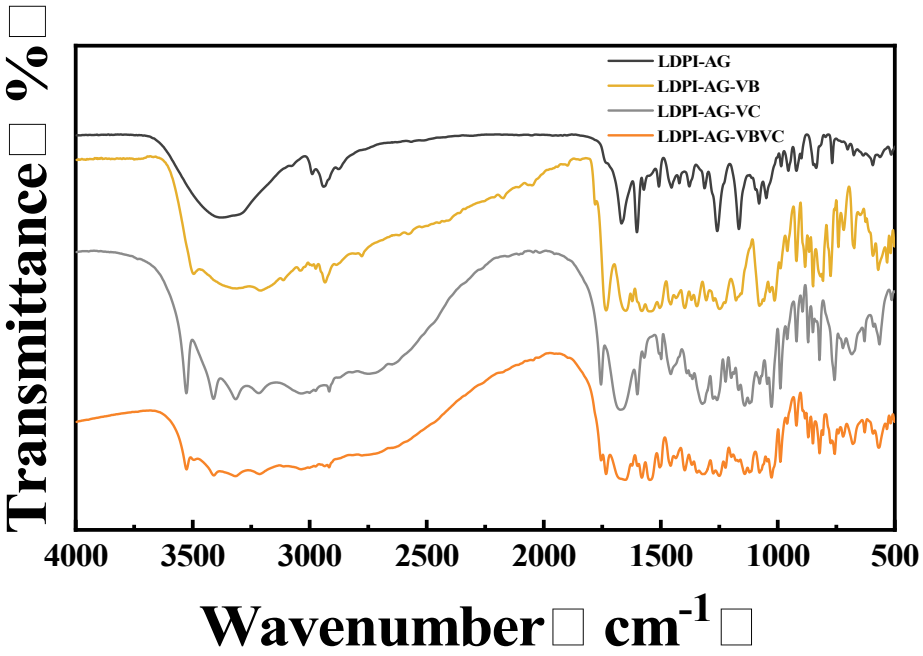

Figure S5. Fourier transform spectroscopy of each group of scaffolds.

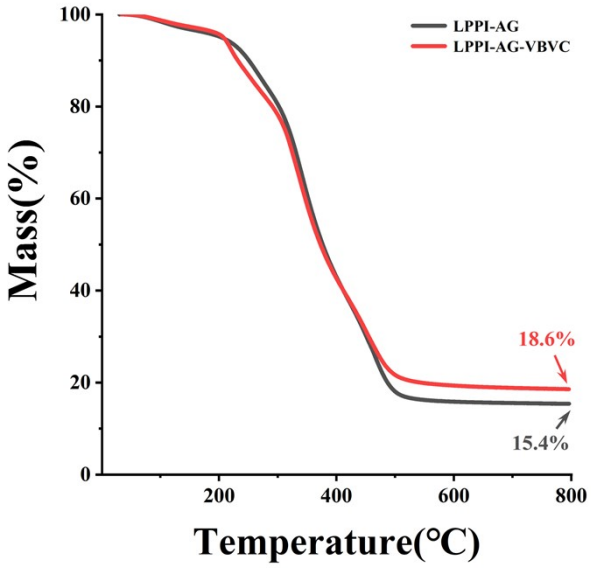

Figure S6. Thermogravimetry of the scaffolds

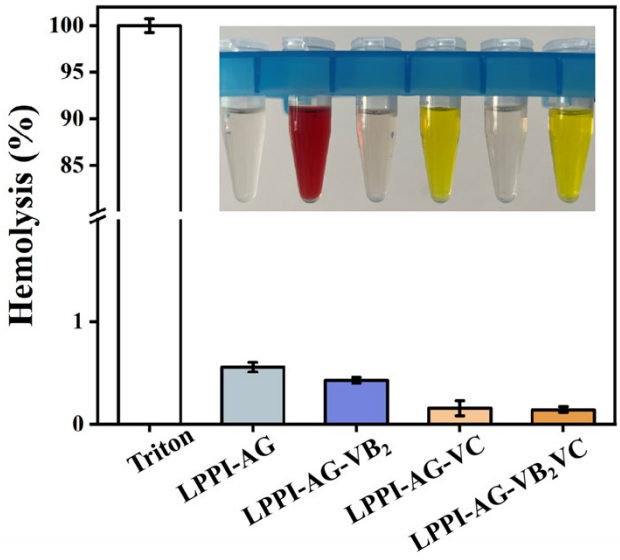

Figure S7. Hemolysis ratio of the scaffolds (PC: 0.1% Triton X-100, NC: PBS).

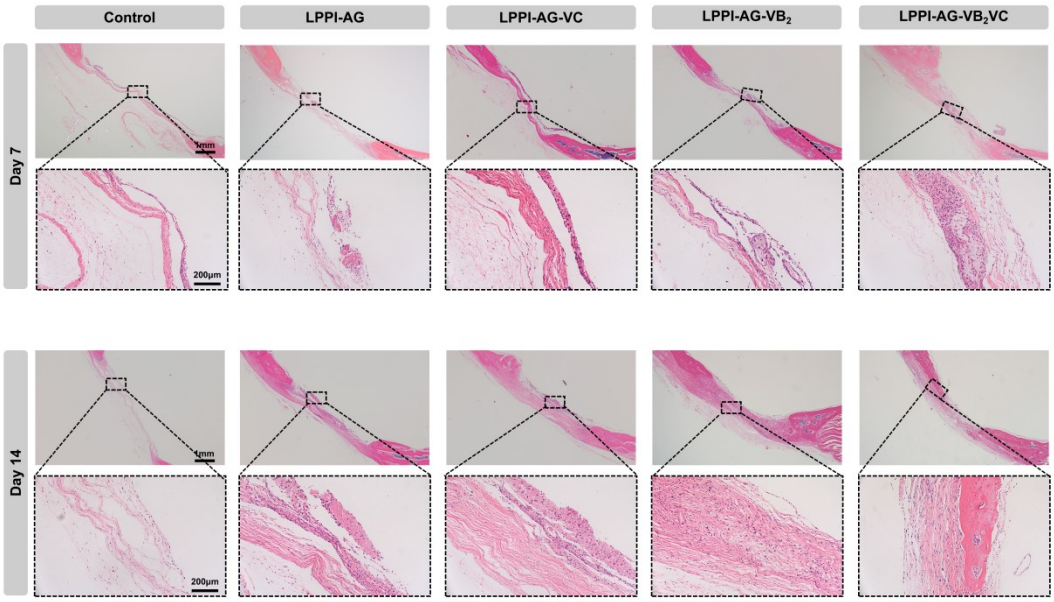

Figure S8. HE staining of scaffolds in each group 4 weeks and 8 weeks after implantation in mouse calvarial defects.

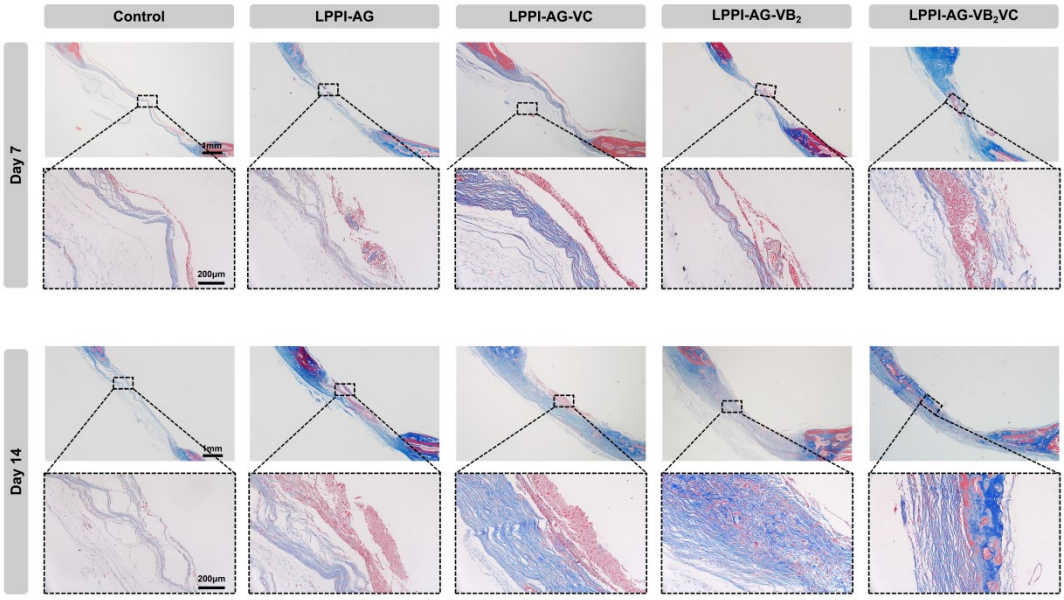

Figure S9. MASSON staining of scaffolds in each group 4 weeks and 8 weeks after implantation in mouse calvarial defects.

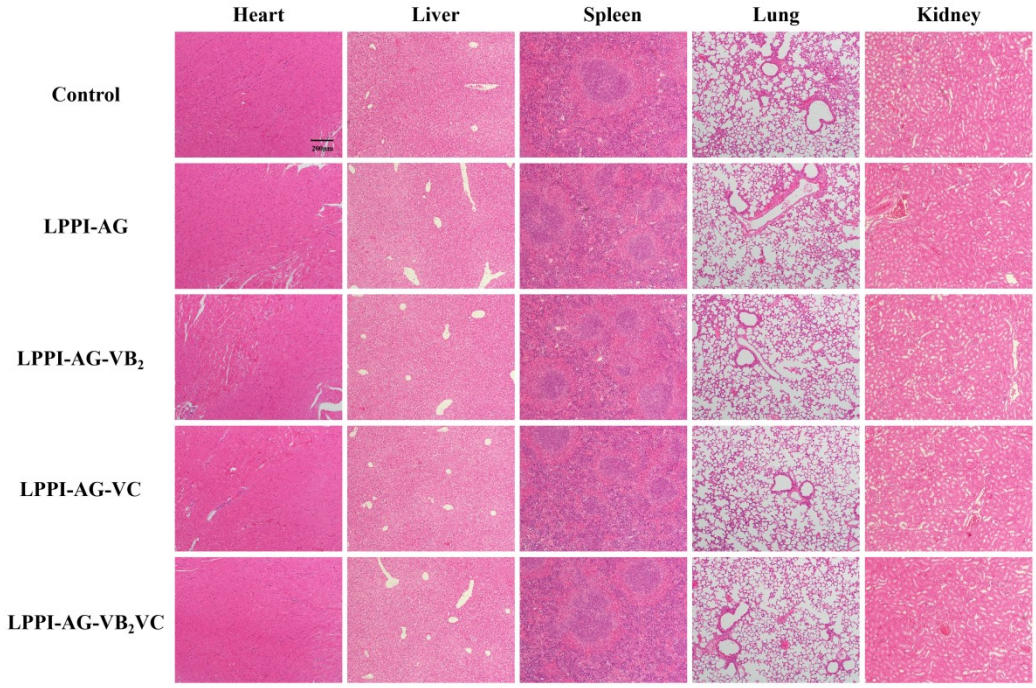

Figure S10. HE staining images of major organs in various groups.

Gene name	Forward Premier（from 5'-3'）	Reverse Premier（from 5'-3'）
GAPDH	CTGGAGAAACCTGCCAAGTATG	GGTGGAAGAATGGGAGTTGCT
OCN	TGACAAAGCCTTCATGTCCAA	CTCCAAGTCCATTGTTGAGGTAG
Col I	CCCAGCGGTGGTTATGACTT	TCGATCCAGTACTCTCCGCT
Runx2	CAGTATGAGAGTAGGTGTCCCGC	AAGAGGGGTAAGACTGGTCATAGG
Alp	CGGACCCTGCCTTACCAA	GACCTGAGCGTTGGTGTTGTA

Table S1. Primers for RT–qPCR analysis.