Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Engineering ultrasound-activated piezoelectric hydrogels with antibacterial activity to promote wound healing

Min Xu,[a] Shaozhen Wu,[e] Li Ding,[e] Caijiao Lu,[b] Huangjing Qian,[a] Jinmiao Qu,*[,c] Yu Chen *[,d,e]

[a] Department of Operating Room, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, 325000, P. R. China.

[b] Department of Wound Healing, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, 325000, P. R. China.

[c] Department of Thyroid Cancer, The First Affiliated Hospital of Wenzhou Medical University, Wenzhou, 325000, P. R. China. E-mail: qujinmiao@126.com

[d] Materdicine Lab, School of Life Science, Shanghai University, Shanghai, 200444, P. R. China. E-mail: chenyuedu@shu.edu.cn.

[e] Wenzhou Institute of Shanghai University, Wenzhou, 325000, P. R. China.

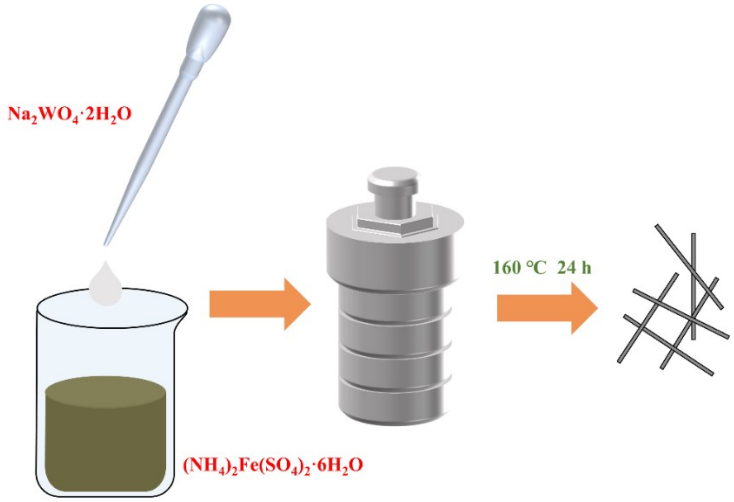

Fig. S1. Schematic illustration of preparation of $FeWO_4$ nanorods.

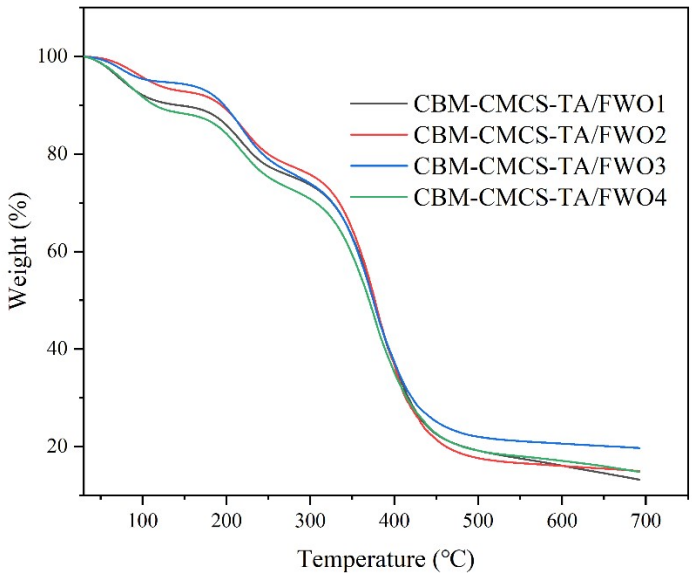

Fig. S2. TGA of different hydrogels.

Fig. S3. Photographs of the Formation of the hydrogel.

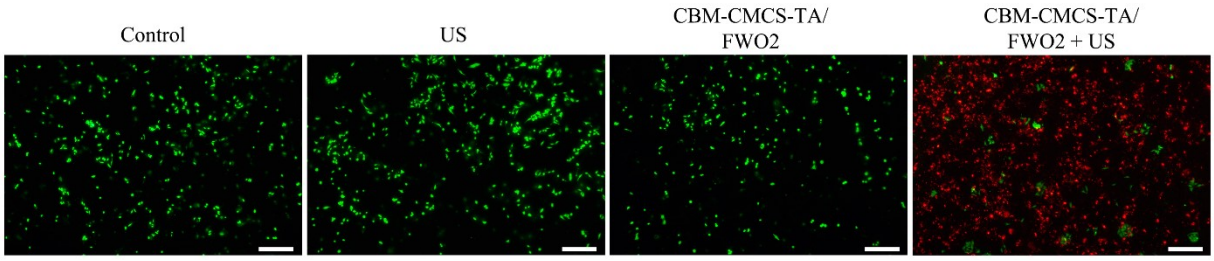

Fig. S4. Fluorescent micrographs of in vitro antibacterial performance of hydrogels with live/dead staining after the bacteria continued to grow for 4 h after various treatments. Green, live bacteria; red, dead bacteria. Scale bar: 10 μm.

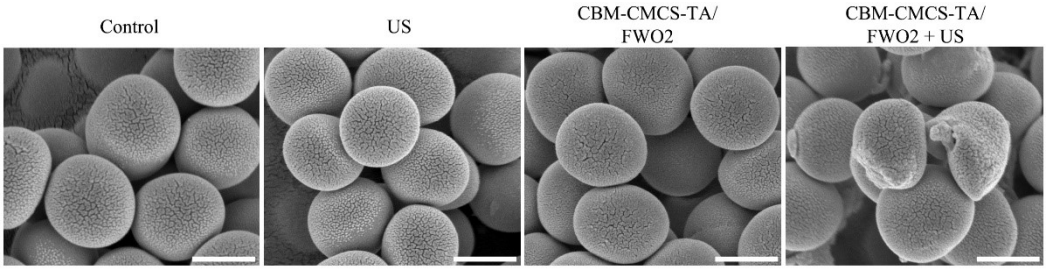

Fig. S5. SEM images of in vitro antibacterial performance of hydrogels with scanning electron microscope after the bacteria continued to grow for 4 h after various treatments. Scale bar: 500 nm.

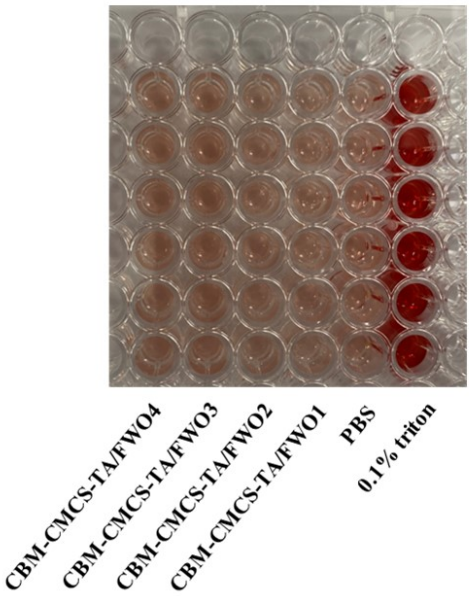

Fig. S6. Photographs from hemolytic activity test of the hydrogels.

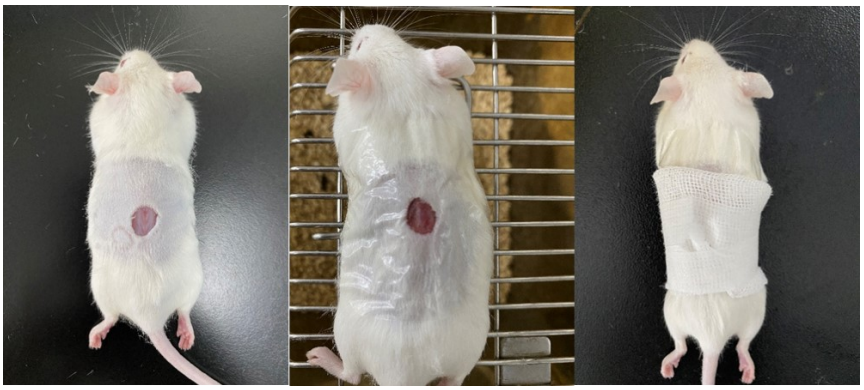

Fig. S7. Photographs of animal experiment.