# Supplementary Materials for

# Melatonin and Calcium Phosphate Crystal-loaded Poly(L-lactic acid) Porous Microspheres Reprogram Macrophages to Improve Bone Repair

#### Authors

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### This file includes:

Figures S1. to S6.



Figure S1. Image of microsphere injection



Figure S2. XRD image of calcium phosphate crystals



Figure S3. Release of substance from microspheres. (A) Release curve of calcium ions and phosphate ions. (B) Release curve of melatonin.





**Figure S4. (A)** Images of ALP and Alizarin red staining (scale bar =  $100 \mu m$ ). **(B)** Quantitative analysis of ALP staining (n = 4). **(C)** Quantitative analysis of calcium nodule content.



B





**Figure S5. (A)** RUNX2 immunofluorescence staining (scale bar = 50  $\mu$ m). **(B)** Semiquantitative analysis of the intensity of RUNX2 immunofluorescence staining (n = 4).



B



**Figure S6.** (A) OPN immunofluorescence staining (scale bar = 50  $\mu$ m). (B) Semiquantitative analysis of the intensity of OPN immunofluorescence staining.