

Supporting Information

Leveraging solid-liquid interaction to fabricate drug-microsphere *in site* encapsulated bone-repair scaffolds

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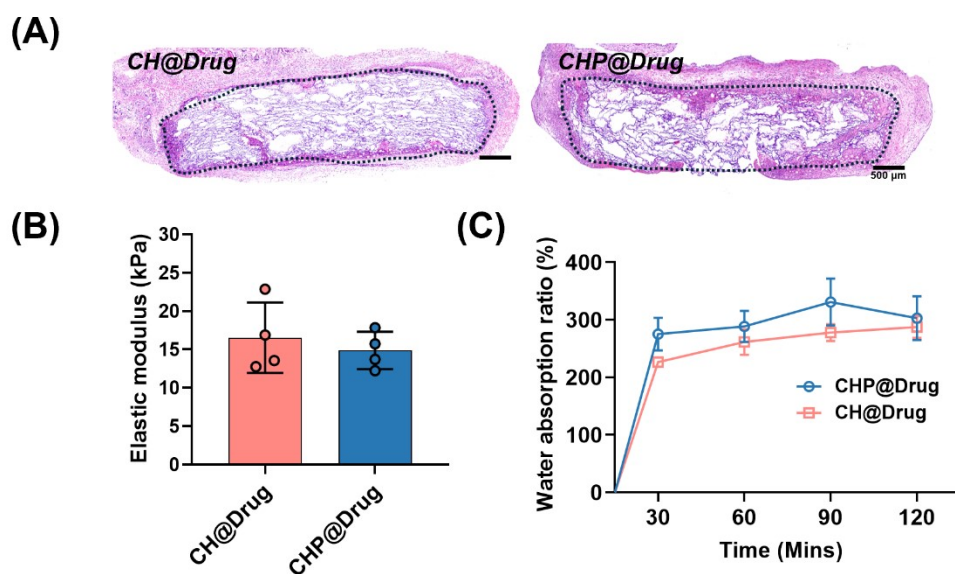


Fig. S1 A) The gross view of tissue infiltration of CH@Drug and CHP@Drug B) The mechanical properties of CHP@Drug and CH@Drug (n=4). C) The water absorption ratio of CHP@Drug and CH@Drug.

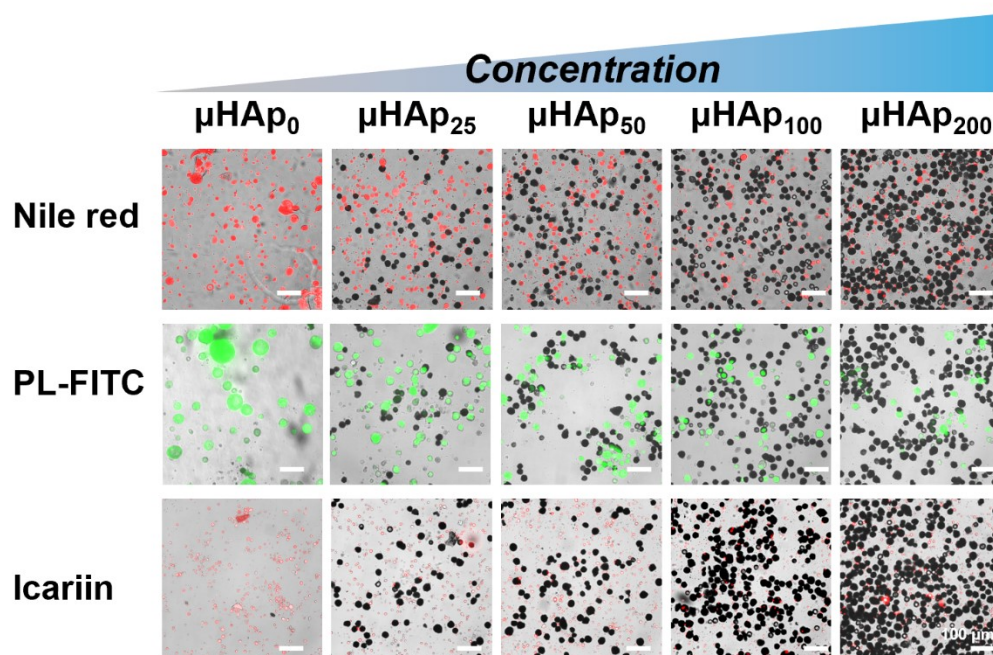


Fig. S2 The gross view of fluorescent molecules labeled PMD with different μHAp content.

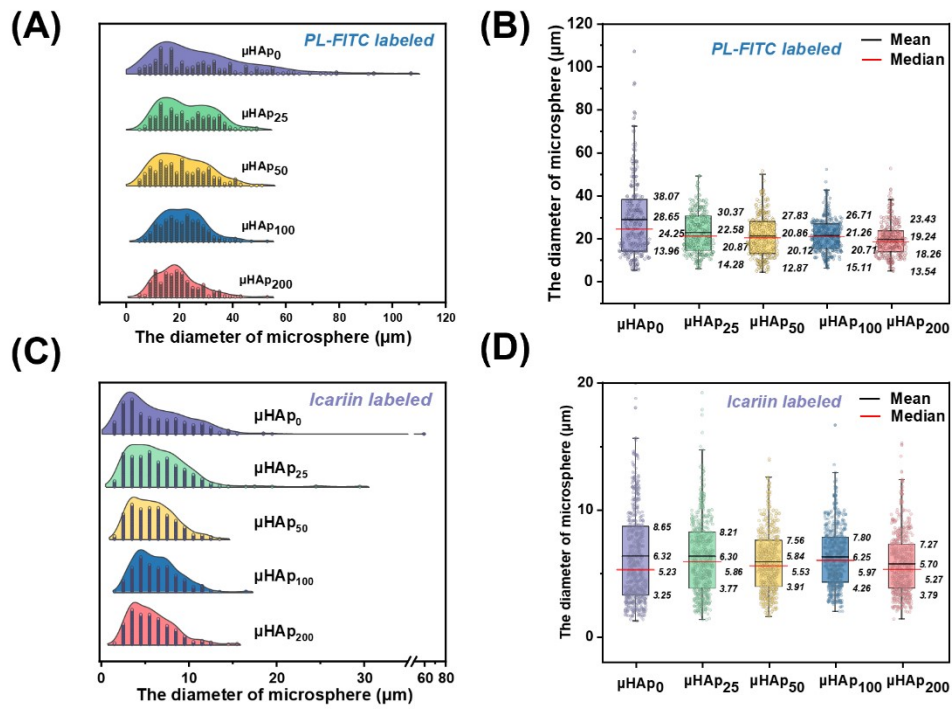


Fig. S3 A) The kernel density estimation and B) the box plot of statistical results of PL-FITC labeled PMD. C) The kernel density estimation and D) the box plot of statistical results of Icarin labeled PMD (the four values are: upper quartile, mean, median, and lower quartile).

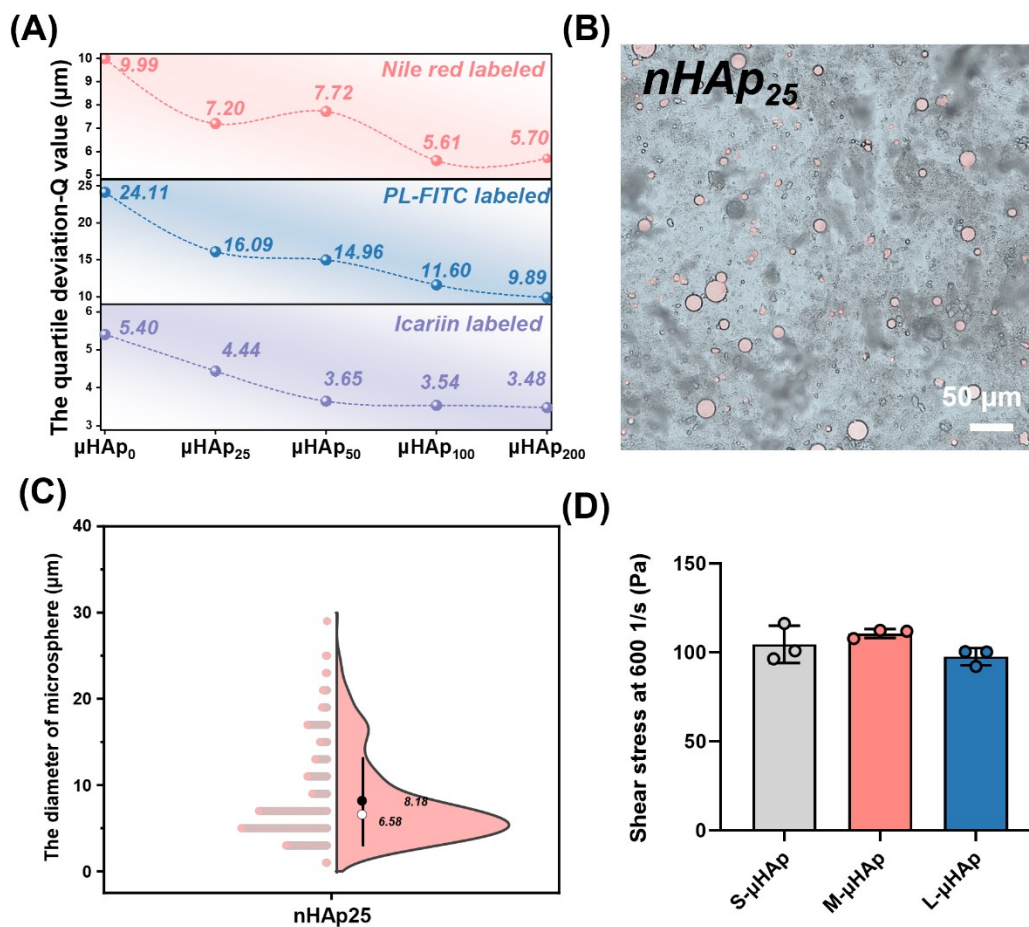


Fig. S4 A) The quartile deviation-Q of Nile Red labeled, FITC-PL labeled, and Icariin labeled microspheres with different μHAp content, respectively. B) PMD formed with the nHAp at a concentration of 25 mg/mL. C) The diameter statistical results of PMD (n=300). D) Quantitative results of shearing stress in aqueous solutions with different size μHAp .

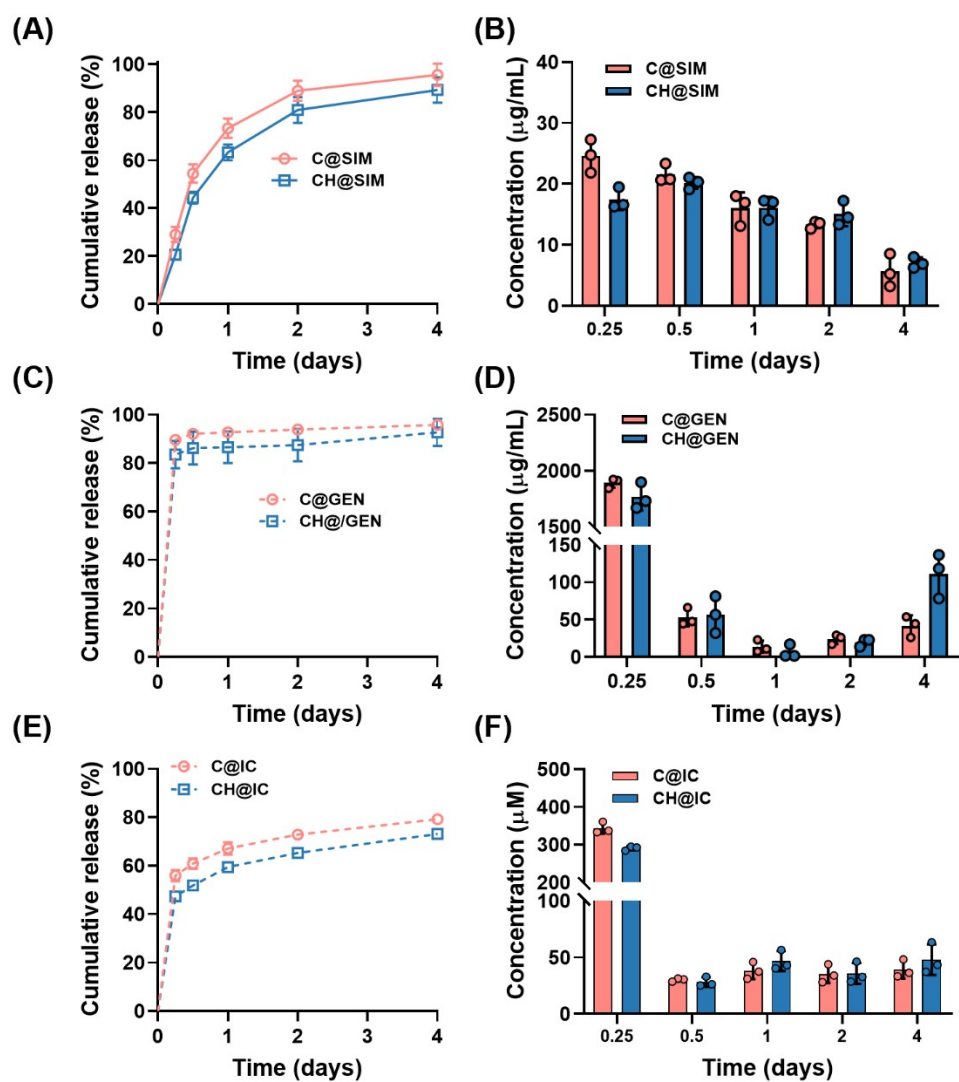


Fig. S5 A) and B) The release behavior of C@SIM and CH@SIM. C) and D) The release behavior of C@GEN and CH@GEN. E) and F) The release behavior of C@IC and CH@IC.

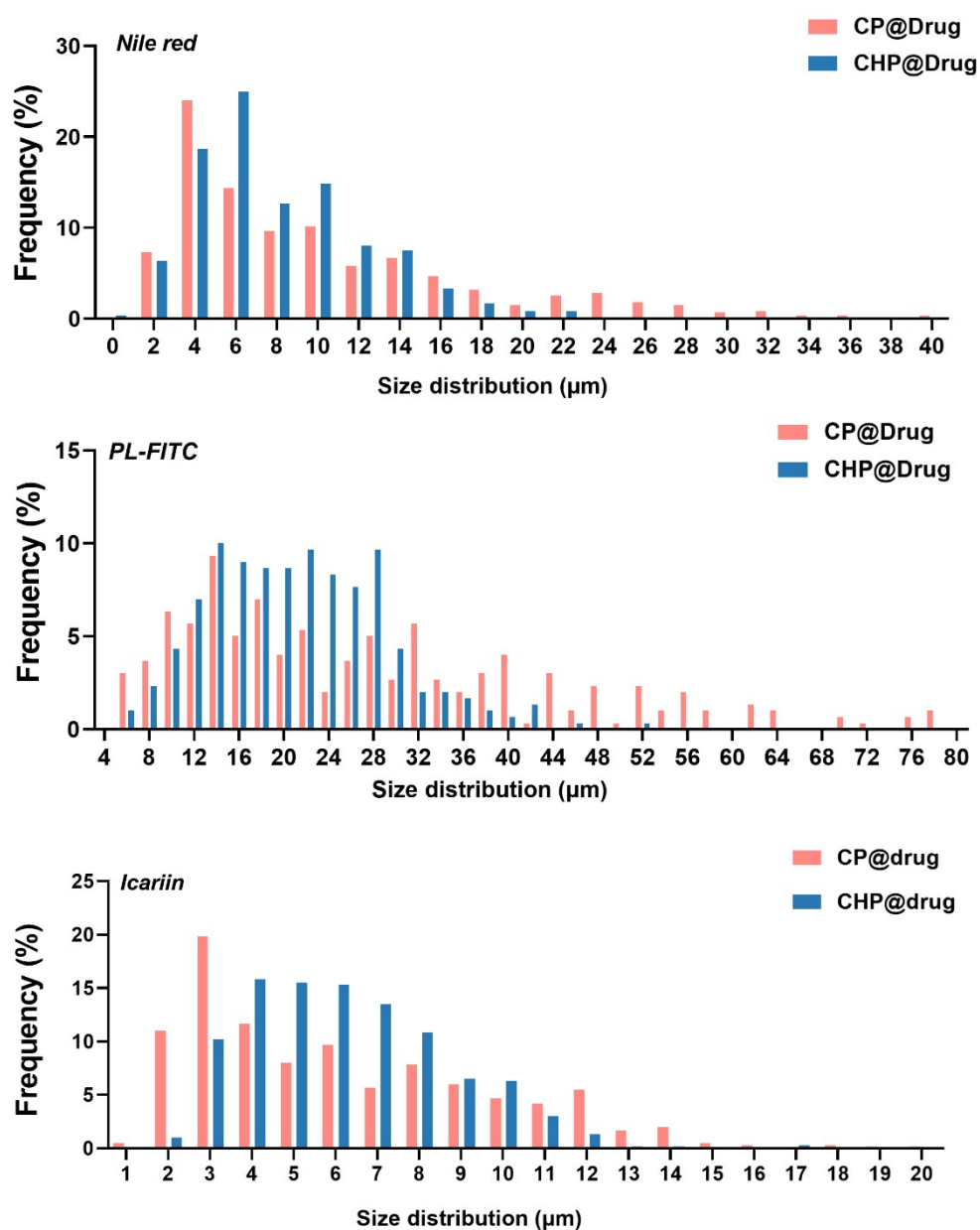


Fig. S6 The frequency distribution of microspheres contained different solubility properties drug in CP@Drugs and CHP@Drugs.

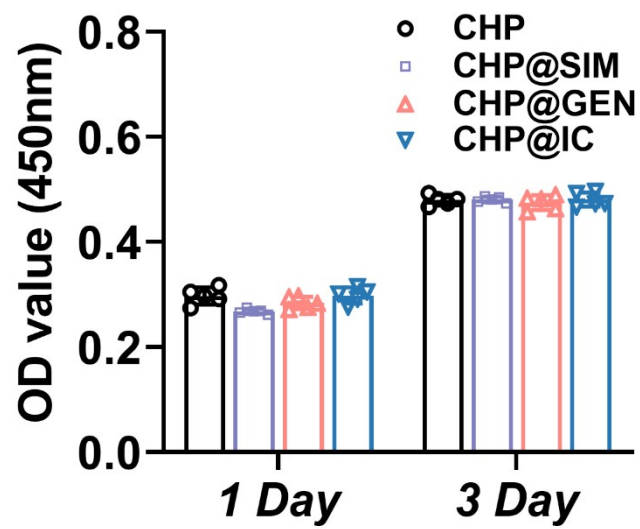


Fig. S7 The cell proliferation activity of BMSCs on CHP, CHP@SIM, CHP@GEN and CHP@IC.

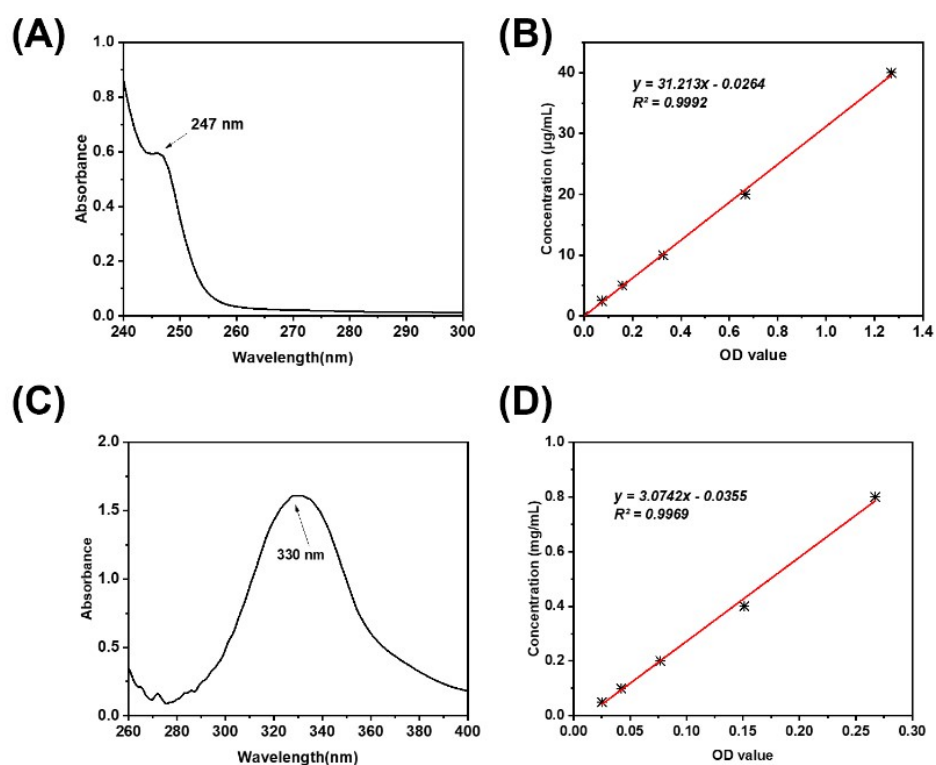


Fig. S8 A) The ultraviolet-visible spectrum of simvastatin. B) The standard curve of simvastatin concentration. C) The ultraviolet-visible spectrum of Gentamicin sulfate measured by derivatization method. B) The standard curve of Gentamicin sulfate concentration.