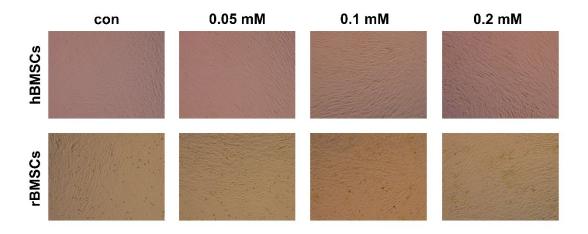
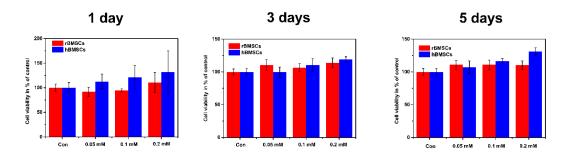


## Supplementary Material



**Supplementary Figure S1.** Photographs of hBMSCs and rBMSCs treated with AuNCs with concentration of 0.05 mM, 0.1 mM and 0.2 mM respectively.

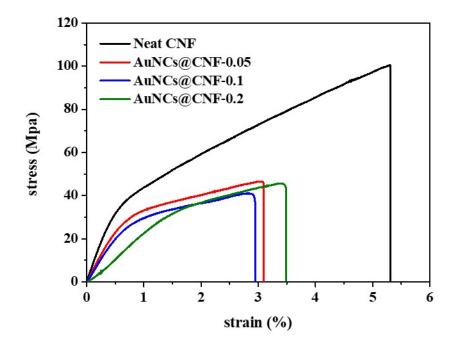


**Supplementary Figure S2.** Cell viability of rBMSCs and hBMSCs cells after incubated with AuNCs for 1, 3 and 5 days respectively.

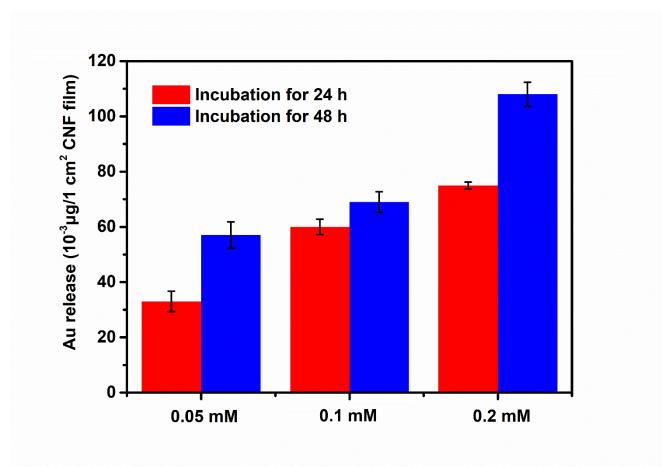
Supplementary Material



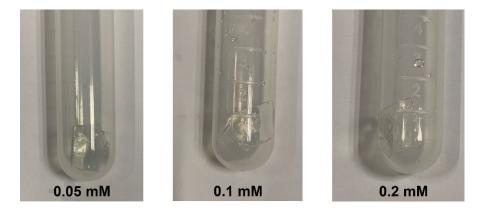
**Supplementary Figure S3**. Photograph of as-prepared neat CNF film, AuNCs@CNF-0.05, AuNCs@CNF-0.1 and AuNCs@CNF-0.2 respectively.



Supplementary Figure S4. Stress-strain curves of the prepared films



**Supplementary Figure S5.** AuNCs release from AuNCs@CNF films by incubating with PBS buffer at 37°C for 24 and 48 h



**Supplementary Figure S6.** Photographs of AuNCs@CNF-0.05, AuNCs@CNF-0.1 and AuNCs@CNF-0.2 films after incubated with PBS buffer at 37°C for 48 h respectively.