Supplemental Information

Protein Nanofibril Assemblies Templated by Graphene Oxide Nanosheets Accelerate Early Cell Adhesion and Induce Osteogenic Differentiation of Human Mesenchymal Stem Cells

Yajun Shuai,^{†,‡,§} Chuanbin Mao, ^{*,‡,§} Mingying Yang^{*,†}

† College of Animal Science, Zhejiang University, Hangzhou, Zhejiang 310058, China

‡ School of Materials Science and Engineering, Zhejiang University, Hangzhou, Zhejiang, 310027, China

§Department of Chemistry & Biochemistry, Stephenson Life Sciences Research Center, Institute for Biomedical Engineering, Science and Technology, University of Oklahoma, 101 Stephenson Parkway, Room 3310, Norman, OK 73019-5300, USA

To whom correspondence should be addressed: <u>cbmao@ou.edu; yangm@zju.edu.cn</u>

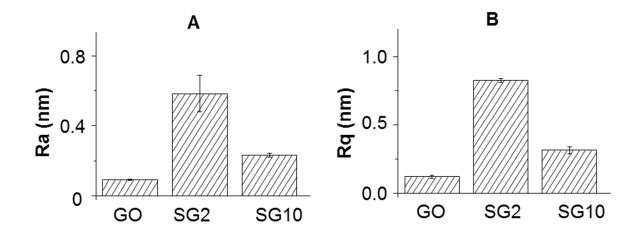


Figure S1. (A) and (B) are the histograms of Ra and Rq, respectively. The Ra values of GO nanosheets, SG2 film and SG10 film were 0.092 ± 0.0037 nm, 0.58 ± 0.10 nm and 0.23 ± 0.012 nm and the Rq values were 0.12 ± 0.014 nm, 0.82 ± 0.014 nm and 0.31 ± 0.026 nm, respectively.

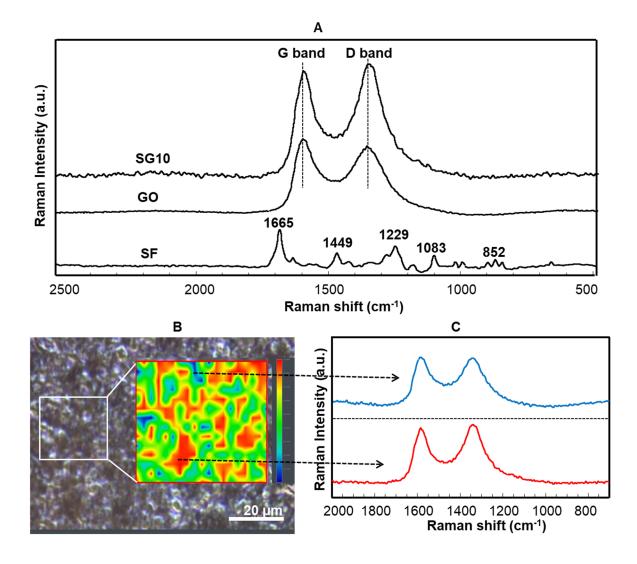


Figure S2. The Raman spectra of the SF, GO and SG10 films (A) and a representative Raman scanning image of the SG10 film (B). Two associated Raman spectra from (B) are plotted in (C). The intensity ratio (ID/IG) of SG10 was higher than that of GO, showing that the GO from SG10 was reduced. Different regions in (B) have the same characteristic peak of GO, which can be attributed to the fact that GO was evenly distributed in the SG10.

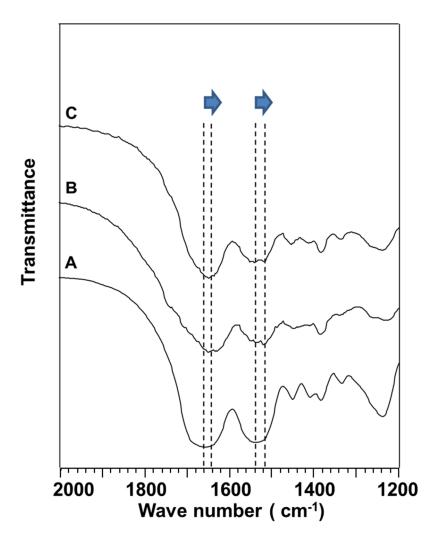


Figure S3. FTIR spectra. (A) SF film, (B) SG2 film and (C) SG10 film.