Supporting Information

Steering Graphene Quantum Dots in Living Cells: Light up the Nucleolus

Xiaojuan Wang,^{*a, b} Yanan Wang,^b Hua He,^{a, b} Xin Chen,^b Xing Sun,^b Yawei Sun^{a, b}, Guangjun Zhou,^c Hai Xu^{a, b} and Fang Huang^{**a, b}

^a State Key Laboratory of Heavy Oil Processing, China University of Petroleum (East China), 66
Changjiang West Road, Qingdao 266580, China
^b Centre for Bioengineering and Biotechnology, China University of Petroleum (East China), 66
Changjiang West Road, Qingdao 266580, China
^c State Key Laboratory of Crystal Materials, Shandong University, Jinan 250100, China

*Corresponding Author

Tel: 86-532-86983455, Email: xwang@upc.edu.cn (X. W.)

**Corresponding Author

Tel: 86-532-86981560, Fax: 86-532-86981560, Email: fhuang@upc.edu.cn (F.H.)



Figure S1. X-ray photoelectron spectra C 1s analysis of nGQD (A) and cGQD (B).



Figure S2. The excitation-dependent PL emission of nGQD (A) and cGQD (B) aqueous solution.



Figure S3. Gel electrophoresis of cGQD (left lane) and nGQD (right lane). The white dashed line indicates the sample-adding area and the image was taken under UV light.



Figure S4. Cellular uptake of nGQD (400 μ g/mL) by live (A) MCF7 and (B) HeLa cells after incubation for 5 h at 37°C. Scale bar is 20 μ m.



Figure S5. MTT cell viability of HepG2 cells treated with nGQD and cGQD for 24 h. The data are displayed as means \pm standard deviation with n = 6.



Figure S6. These nGQD-stained HepG2 cells clearly show different number of nucleoli corresponding to various stages of nucleolar fusion.