Supporting Information

Synthesis of Aqueous AgInS/ZnS@PEI as Self-Indicating Nonviral Vector for Plasmid DNA Self-Tracking Delivery

Wentao Yang^{a,§}, Weisheng Guo^{b,§}, Tingbin Zhang^b, Weitao Yang^a, Lin Su^a, Lei Fang^a, Hanjie Wang^a, Xiaoqun Gong^{*,a}, and Jin Chang^{*,a,c,d}

a School of Materials Science and Engineering, School of Life Sciences, Tianjin University, Tianjin 300072, China

b CAS Key Laboratory for Biological Effects of Nanomaterials & Nanosafety National Center for Nanoscience and Technology, Beijing , 100190 , China

c Tianjin Engineering Center of Micro-Nano Biomaterials and Detection-Treatment Technology, Tianjin 300072, China

d Collaborative Innovation Center of Chemical Science and Engineering (Tianjin),

Tianjin 300072, China

§ W.Y. and W.G. have equal contribution to this paper.

Corresponding Authors

*Jin Chang: Email: jinchang@tju.edu.cn. Tel. and Fax: +86-022-27401821

*Xiaoqun Gong: Email: gongxiaoqun@tju.edu.cn.

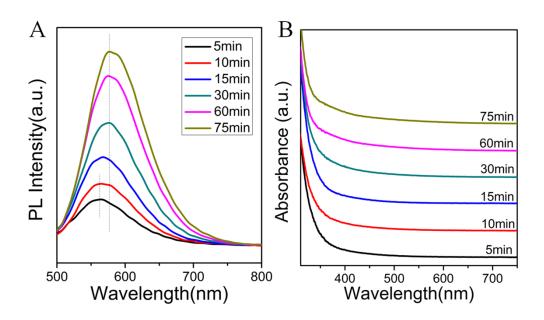


Figure S1. Temporal evolution of the photoluminescence (A) and UV-absorption (B) spectra of the ZAIS QDs. (Ag/In = 1/8)

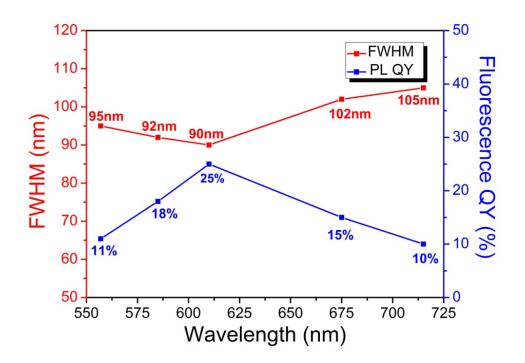


Figure S2. Full width at half maximum (FWHM) and fluorescence QY of ZAIS QDs

with different Ag/In ratios

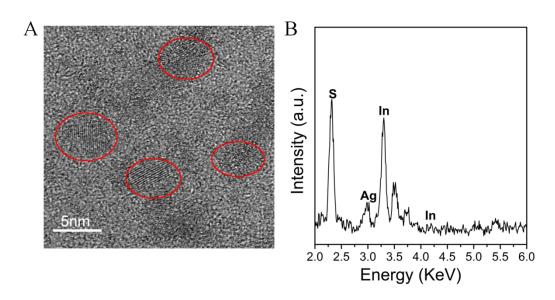


Figure S3. HRTEM image (A) and EDX spectrogram (B) of ZAIS@PEI QDs

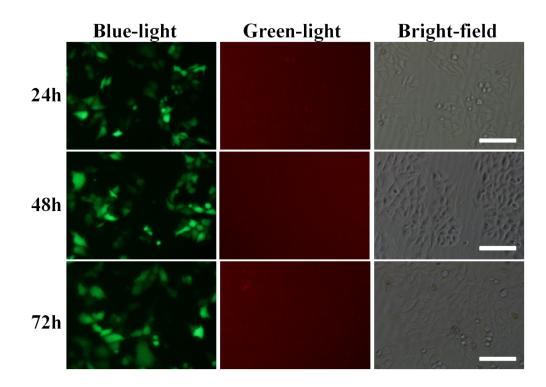


Figure S4. The fluorescence images of Hela cells at different times after transfection (The GFP was green under blue light, and there was no light excited under the green light. PEI10 KDa/DNA=5/1. Scale bar:100 µm.)

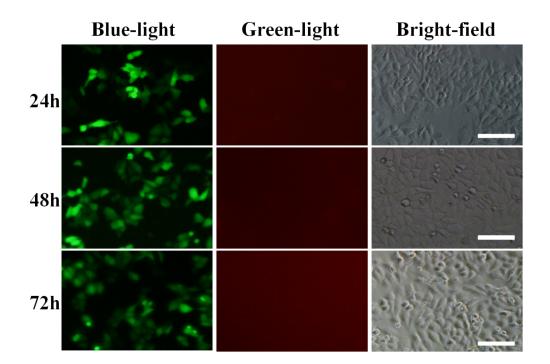


Figure S5. The fluorescence images of Hela cells at different times after transfection (The GFP was green under blue light, and there was no light excited under the green light. PEI25 KDa/DNA=5/1. Scale bar:100 µm.)

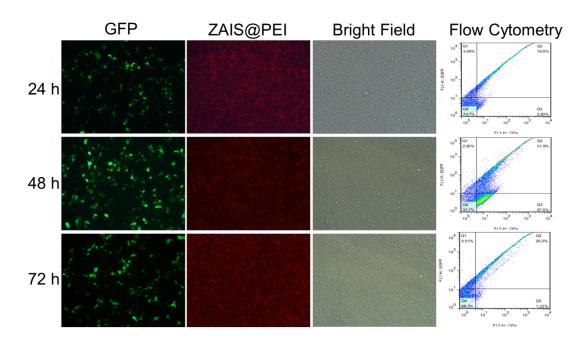


Figure S6. The fluorescence images of 293T cells at different times after transfection (The GFP was green under blue light, and the QDs were red under the green light. The transfection efficiency measured by FCM analysis was 20%, 32% and 25% at 24, 48,

and 72h after transfection, respectively. QDs/DNA=5/1. Scale bar:100 $\mu m.)$