

Figure S3: (A) XPS, (B) C<sub>1s</sub>, (C) N<sub>1s</sub> and (D) O<sub>1s</sub> spectra of SC-dots.

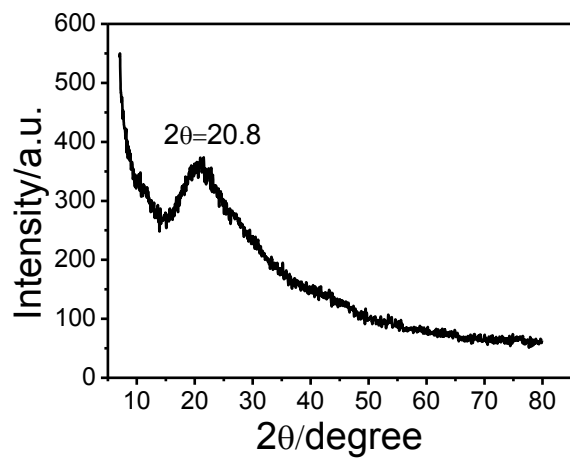


Figure S4: XRD patterns for SC-dots.

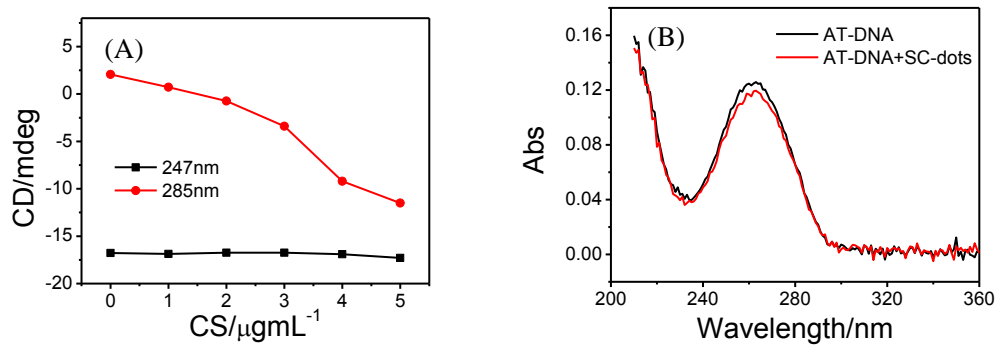


Figure S5: (A) Plots of CD intensity versus concentration of SC-dots. CD intensity at 247 nm (black) and at 285 nm (red). (B) UV spectra of AT-DNA in the absence (black) or presence (red) of the 2  $\mu\text{g/mL}$  SC-dots.

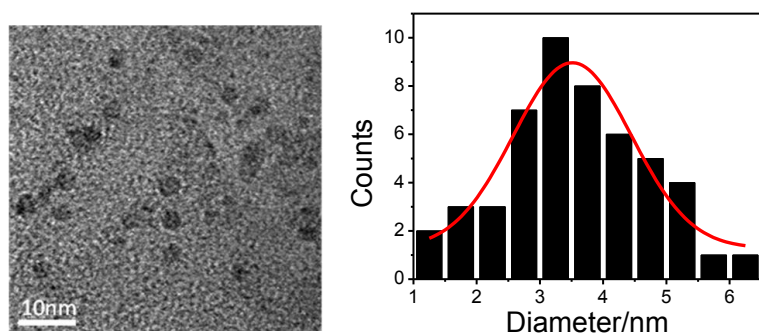


Figure S6: (A) TEM image of G-dots; (B) Diameters statistics of G-dots.

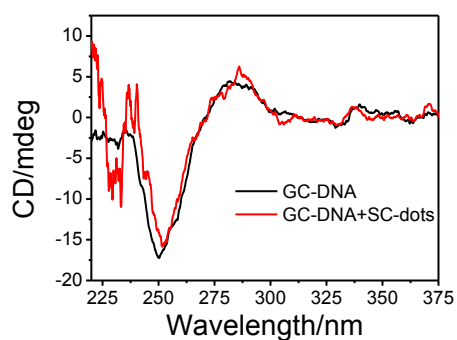


Figure S7: CD spectra of GC-DNA in the absence (black) or presence (red) of 5  $\mu\text{g/mL}$  SC-dots in phosphate buffer containing 2 M NaCl.

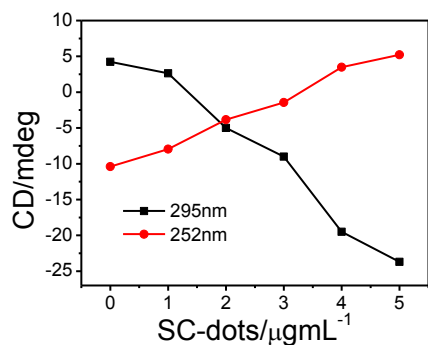


Figure S8: Plots of CD intensity of ct-DNA versus concentration of SC-dots. CD intensity at 295nm (black) and at 252nm (red).

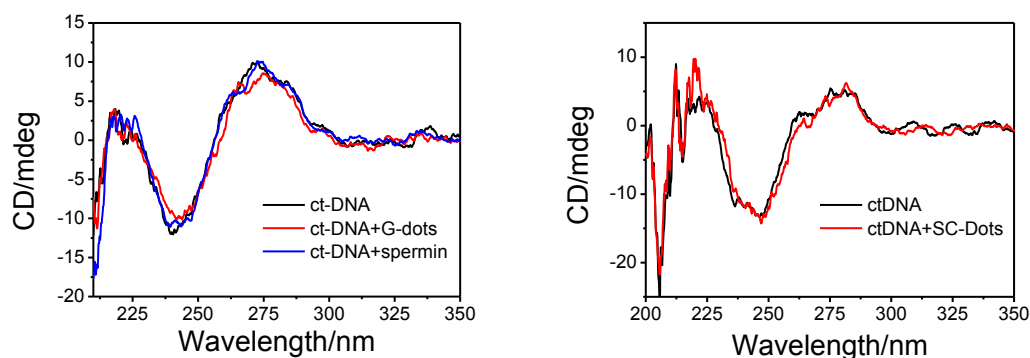


Figure S9: (A) CD spectra of  $30 \mu\text{g ml}^{-1}$  ct-DNA (black), DNA solutions after addition with  $5 \mu\text{g/mL}$  G-dots (red) and after addition with  $5 \text{ mM}$  spermine (blue). (B) CD spectra of ct-DNA in the absence (black) or presence (red) of  $5 \mu\text{g/mL}$  SC-dots in phosphate buffer containing  $4 \text{ M NaCl}$ .

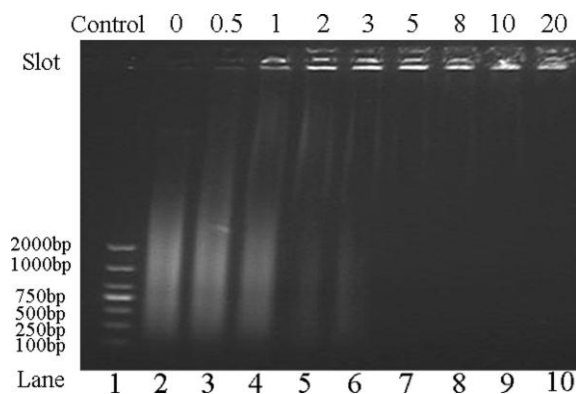


Figure S10: Agarose gel electrophoresis of ct-DNA with different SC-dots. The samples were electrophoresed on a 1% agarose gel for 30 min. Lane 1: DNA marker 2000 (TaKaRa company). Lane 2-10: SC-dots concentrations of 0, 0.5, 1, 2, 3, 5, 8, 10, 20  $\mu\text{g}/\text{mL}$ , respectively. The gel electrophoresis was carried out at  $37^\circ\text{C}$  after incubation for 0.5h.

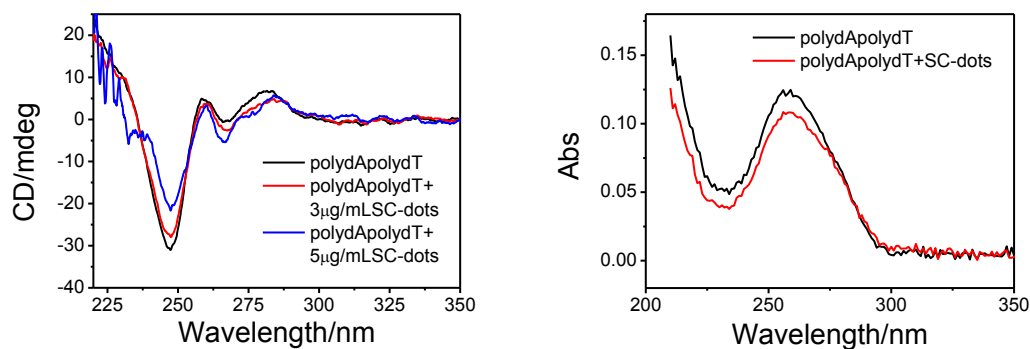


Figure S11: (A) CD spectra of 2  $\mu\text{M}$  polydApolydT (black), DNA solutions after addition of 3  $\mu\text{g}/\text{mL}$  SC-dots (red) and 5  $\mu\text{g}/\text{mL}$  SC-dots (blue). (B) UV spectra of polydApolydT duplex DNA in the absence (black) or presence (red) of 3  $\mu\text{g}/\text{mL}$  SC-dots.

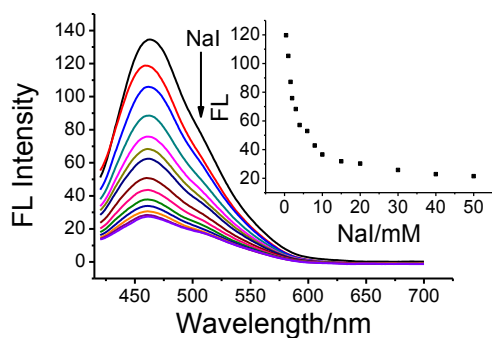


Figure S12: Add different amounts of NaI solution from 5 to 50 mM in the 5  $\mu\text{g ml}^{-1}$  SC-dots solution.

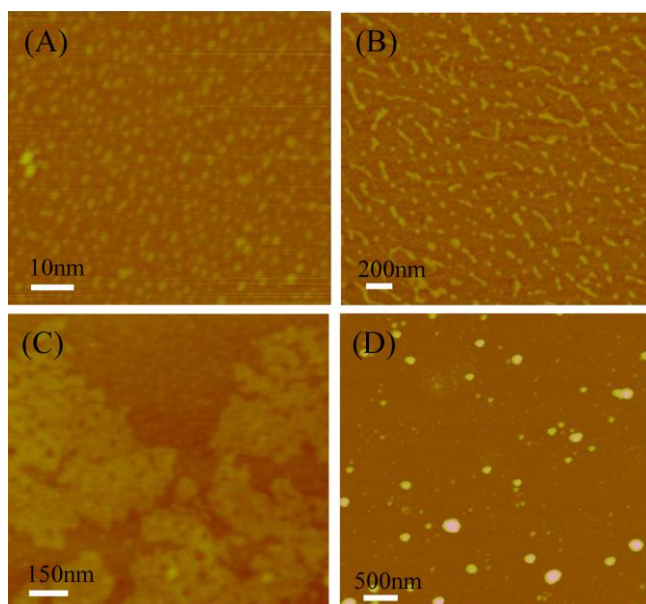


Figure S13: AFM images of (A) SC-dots, (B) ct-DNA, (C) ct-DNA with 5  $\mu\text{g/mL}$  SC-dots, (D) ct-DNA with 10  $\mu\text{g/mL}$  SC-dots. The ct-DNA was condensed as a network after addition of 5  $\mu\text{g/mL}$  SC-dots, looking like forming DNA-wrapped complexes (Figure S15 C). By further increasing the amount of SC-dots higher to 10  $\mu\text{g/mL}$ , the condensed microsphere would be formed (Figure S15 D).

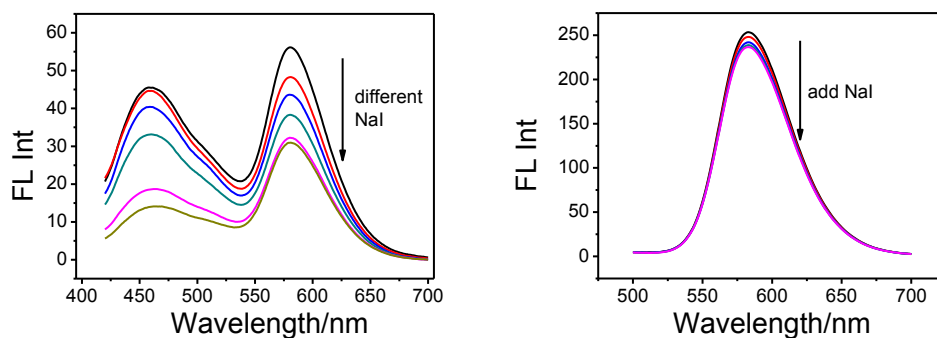


Figure S14: Add different amounts of NaI solution from 5 to 50 mM in the SC-dots/ct-DNA/EB solution with excitation wavelength of 400 nm (A) and 480 nm (B).

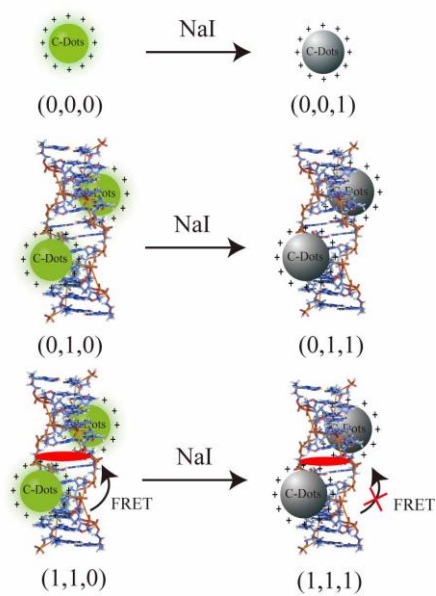


Figure S15: Iodide ions were used to quench the fluorescence of SC-dots, thus no FRET occurred between SC-dots and EB. The concentration of NaI: 50 mM.