

## **Electronic Supplementary Information**

### **Identifying G-quadruplex-binding ligands using DNA-functionalized gold nanoparticles**

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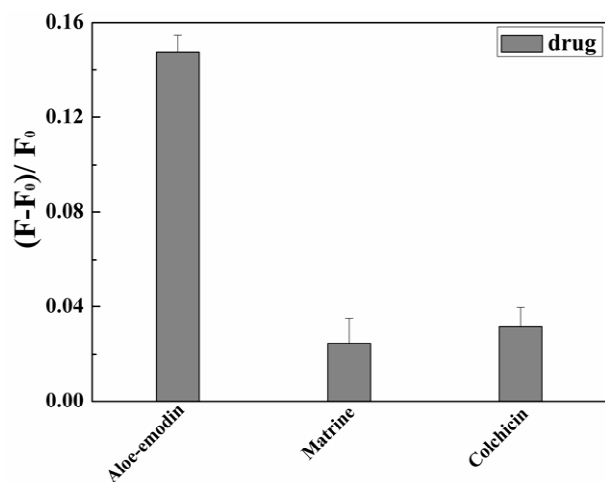


Fig. S1 The bar chart of fluorescence response of different drugs to F-GDNA/cDNA-GNPs mixtures in the presence of 0.1g/L BSA, where  $F_0$  and  $F$  are the FAM fluorescence intensities in the absence and presence of drugs, respectively. The concentration of drug is 500 nM.

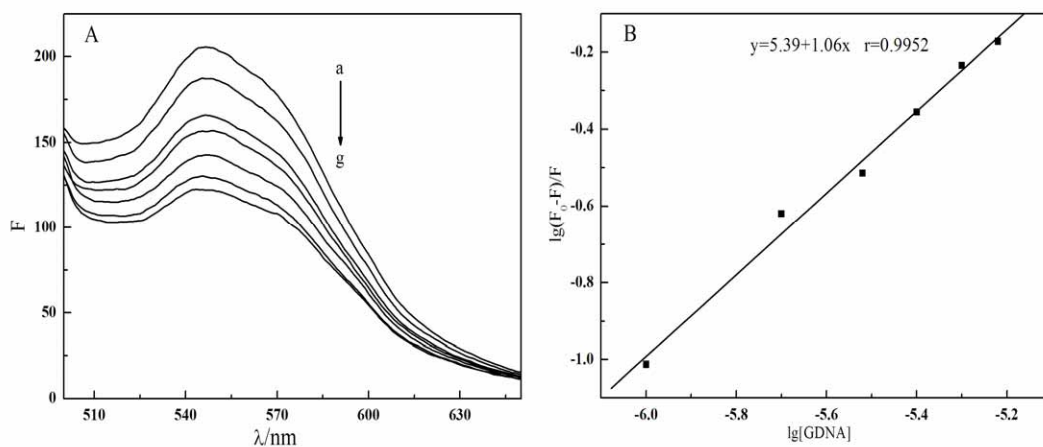


Fig. S2 Fluorescence emission spectra of 38  $\mu$ M AE with different concentration of GDNA (A) and the linear relation between AE and different concentrations of GDNA (B).

Table S1 Effect of ionic strength on the FRET efficiency.

Medium	5 nM AE $(F-F_0)/F_0$	500 nM AE $(F-F_0)/F_0$
20 mM Tris-HCl	----	-0.027
20 mM Tris-HCl, 50 mM NaCl	----	0.049
20 mM Tris-HCl, 100 mM NaCl	0.025	0.18
20 mM Tris-HCl, 150 mM NaCl	----	-0.034