A Strategy for Increasing Drug Solubility and Efficacy through Covalent Attachment to Polyvalent DNA-Nanoparticle Conjugates

Xue-Qing Zhang,^{$\dagger,+$} *Xiaoyang Xu*,^{$\ddagger,+$} *Robert Lam*,[§] *David Giljohann*,^{\ddagger} *Dean Ho*,^{*, $\dagger,\$,^{\perp}$} *and Chad A*. *Mirkin*^{*, \ddagger,\dagger}

†Department of Biomedical Engineering, ‡Department of Chemistry, §Department of Mechanical Engineering, Northwestern University, Evanston, Illinois 60208, and ⊥Robert H. Lurie Comprehensive Cancer Center, Northwestern University, Chicago, Illinois 60611

* To whom correspondence should be addressed. E-mail: chadnano@northwestern.edu; d-ho@northwestern.edu

⁺ Xue-Qing Zhang and Xiaoyang Xu contributed equally to this work.



Figure S1. MTT assay of DNA-AuNPs containing equivalent oligonucleotide concentrations of 0.064, 0.32, 1.6, 8, 40, 200, 1000 nM after 48 h incubation in MCF7 (left) and MES-SA/Dx5 (right) cells (n=6).

Table S1. Hydrodynamic sizes of PTX-DNA@AuNPs **3** in filtered PBS buffer and EMEM at 25 °C and37 °C.

	Incubation temperature (°C)	Particle Size (nm)
PBS	25	31.9 ± 1.3
	37	32.7 ± 1.1
DMEM	25	32.8 ± 0.4
	37	33.1 ± 2.5