

## Supporting Information

### **Biological Assessment of Triazine Dendrimers as Candidate Platforms for Nanomedicine: Toxicological Profiles, Solution Behavior, Biodistribution, and Drug Release and Efficacy in a PEGylated, Paclitaxel Construct**

Su-Tang Lo,<sup>†</sup> Stephan Stern,<sup>‡</sup> Jeffrey D. Clogston,<sup>‡</sup> Jiwen Zheng,<sup>‡</sup> Pavan P. Adisheshaiah,<sup>‡</sup> Marina Dobrovolskaia,<sup>‡</sup> Jongdoo Lim,<sup>‡</sup> Anil Patri,<sup>‡</sup> \* Xiankai Sun,<sup>†</sup>,\* Eric E. Simanek<sup>‡</sup>,\*

*<sup>†</sup>Department of Radiology, University of Texas Southwestern Medical Center, Dallas, Texas 75390*

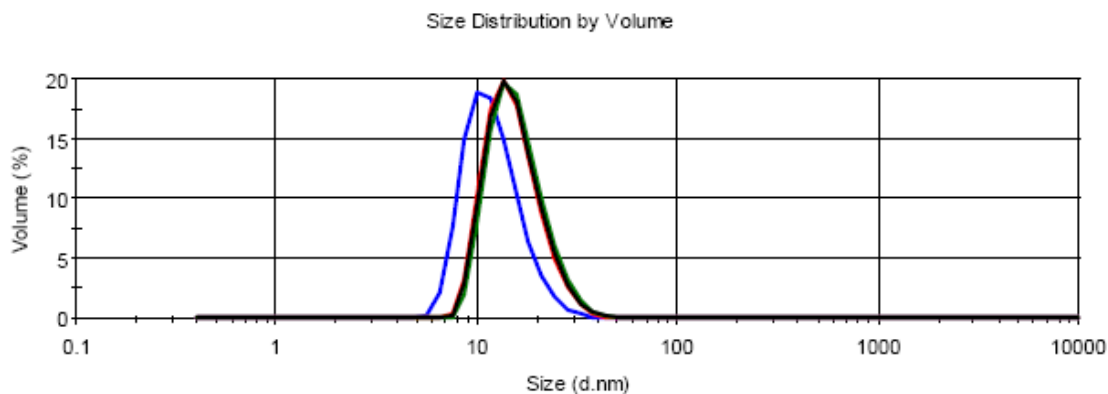
*<sup>‡</sup>Department of Chemistry, Texas A&M University, College Station, Texas 77843-3255*

*<sup>‡</sup>Nanotechnology Characterization Laboratory, Advanced Technology Program, SAIC-Frederick Inc., NCI-Frederick, Frederick, MD 21702*

#### **Table of Contents**

Size and Zeta Potential Measurements	page S2
Cell Micrographs	page S3
Caspase Assay	page S3

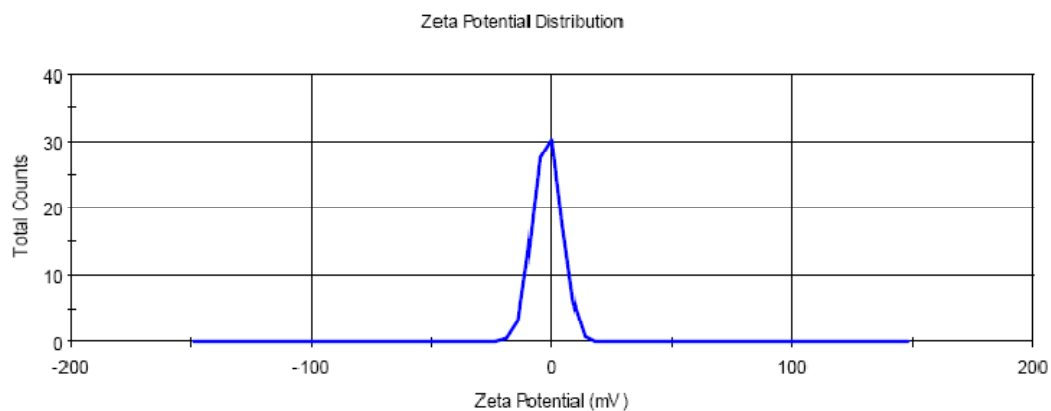
**Figure S1.** The average volume distribution plots for dendrimer **1** is water (blue), 10mM NaCl (red), PBS (green), and saline (black) at 2mg/mL.



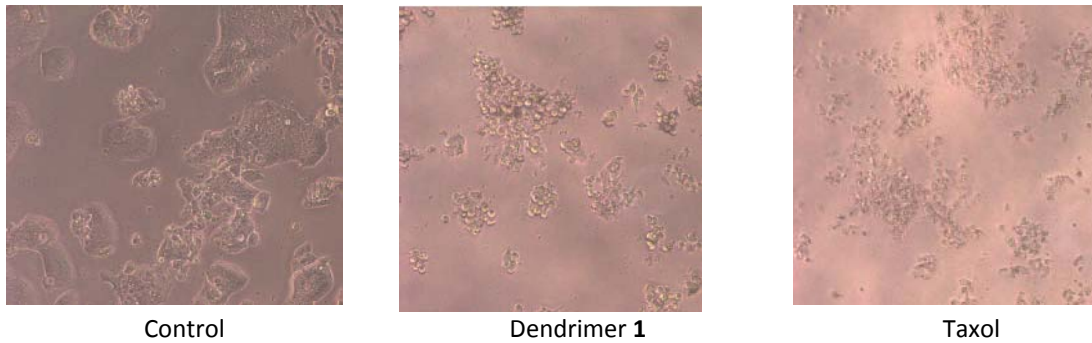
**Figure S2.** Summary of the hydrodynamic size of **1** in different solvents.

Solvent	$\eta$ , cP	Z-Avg, nm	Pdl	Int-Peak, nm	%Int	Vol-Peak, nm	%Vol
Water	0.8872	15.6 (0.3)	0.173 (0.009)	16.9 (0.3)	97.2 (0.5)	12.4 (0.4)	100 (0)
10 mM NaCl	0.8894	18.5 (0.4)	0.098 (0.006)	20.5 (0.4)	100 (0)	15.6 (0.4)	100 (0)
PBS	0.8941	19.4 (0.5)	0.105 (0.007)	21.6 (0.6)	100 (0)	16.3 (0.3)	100 (0)
Saline	0.9025	18.9 (0.3)	0.101 (0.010)	21.0 (0.4)	100 (0)	15.8 (0.4)	100 (0)

**Figure S3.** The average zeta potential for **1** in 10 mM NaCl measured on a Malvern Zetasizer Nano SZ instrument at 25°C with an applied voltage of 120 V.

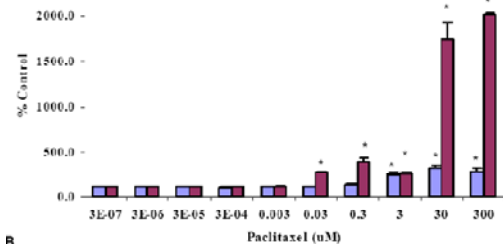


**Figure S4.** LS174T Morphology. Human colon carcinoma cells were treated with **1** and Taxol at 300  $\mu$ M paclitaxel equivalent for 24h. Morphology was assessed by phase contrast light microscopy at 200x magnification.



**Figure S5.** The effect of **1** and Taxol on LS174T caspase activity. Cells were treated for 24h (A) and 48h (B) with  $3 \times 10^{-7}$  to 300  $\mu$ M paclitaxel equivalent concentration of **1** (blue) and Taxol (purple) or control media. The positive control was 10mM acetaminophen. The negative control was media. Data are represented as %negative media control caspase 3 activity. Bars correspond to the mean + SE of 3 individual samples. \*P < 0.05, significantly different from negative control by ANOVA, with post hoc testing by Dunnett's t test.

A) 12h Data



B) 24h Data

