

Superior antiproliferative properties of hybrid nanomaterials

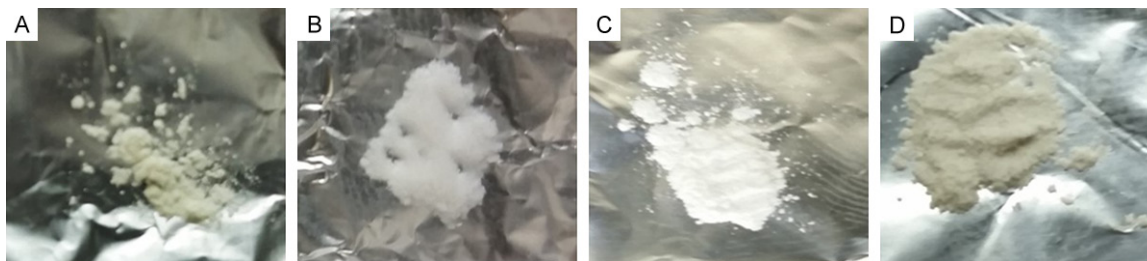


Figure S1. Aspect of samples evaluated in this study. Gen (A) is observed as a semi-hygroscopic beige powder; SiNPs (B) had the appearance of a white crystalline powder; PEG-SiNPs (C) was obtained as a fine white powder, very similar to the aspect of talc; Gen-PEG-SiHNM (D) had a very similar appearance to the PEG-SiNPs, a fine powder, but with a slightly beige color, much like the original color of genistein.

Stability during storage

Samples of HNM obtained were placed in amber vials and stored in desiccators at room temperature. After 6 months, stability of formulated nanomaterials was determined evaluating its mean particle size, shape, surface charge, amount of loaded Gen according the methodology described previously.

Table S1. Mean particle size, ζ -potential, and percentage (EE%) of genistein-loaded PEGylated silica hybrid nanomaterials (Gen-PEG-SiHNM) after 6 months storage

Samples	Storage	Mean particle size (nm)	Zeta potential (mV)	EE%
Gen-PEG-SiHNM	Initial	35.66 ± 2.05^a	$+ 9.54 \pm 0.994^a$	58.2 ± 5.16^a
	6 months	30.91 ± 3.66^a	$+ 8.36 \pm 1.037^a$	50.6 ± 3.73^a

"a" indicates no significant difference ($P < 0.05$) between fresh and stored hybrid nanomaterials. Results are expressed as mean \pm standard error of at least three different batches analyzed by triplicate.

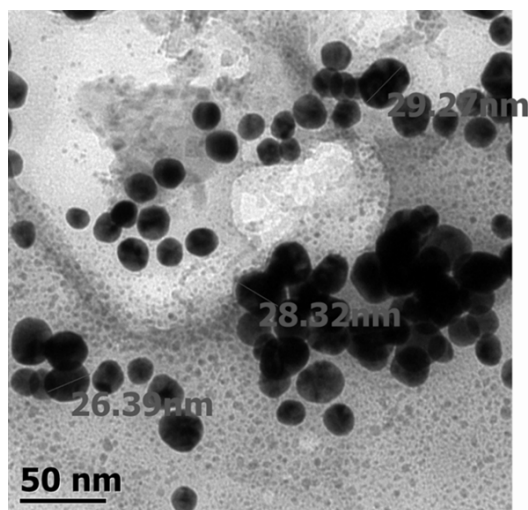


Figure S2. Morphological analyses by TEM of Gen-PEG-SiHNM stored for 6 months; it can be observed that mean particle size and morphology remained after storage.