Supplementary Material

Encapsulation and Enhanced Release of Resveratrol from Mesoporous Silica Nanoparticles for Melanoma Therapy

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   diogomarinheiro@ua.pt (D.M.); barbaraferreira@ua.pt (B.J.M.L.F.); ana.luisa@ua.pt (A.L.D.-d.-S.)
2 Department of Biology & CESAM-Centre for Environmental and Marine Studies, University of Aveiro, 3810-193 Aveiro, Portugal;
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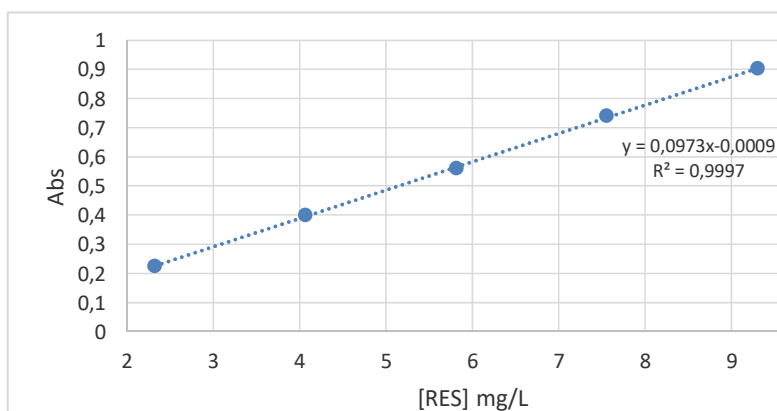### A.   UV-Vis calibration curves for RES quantification

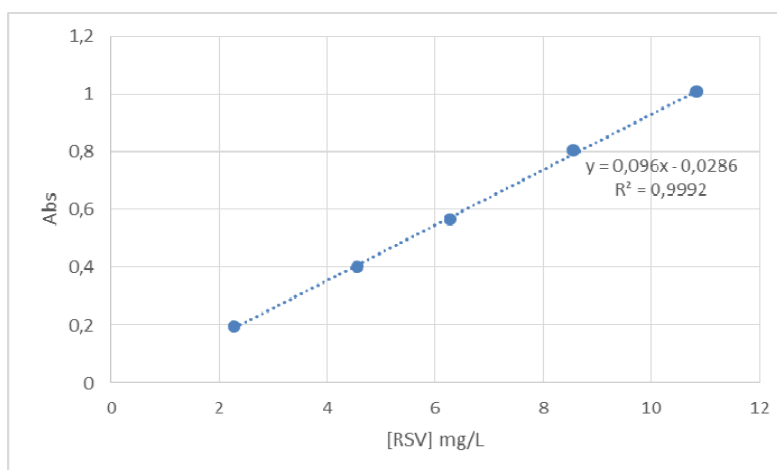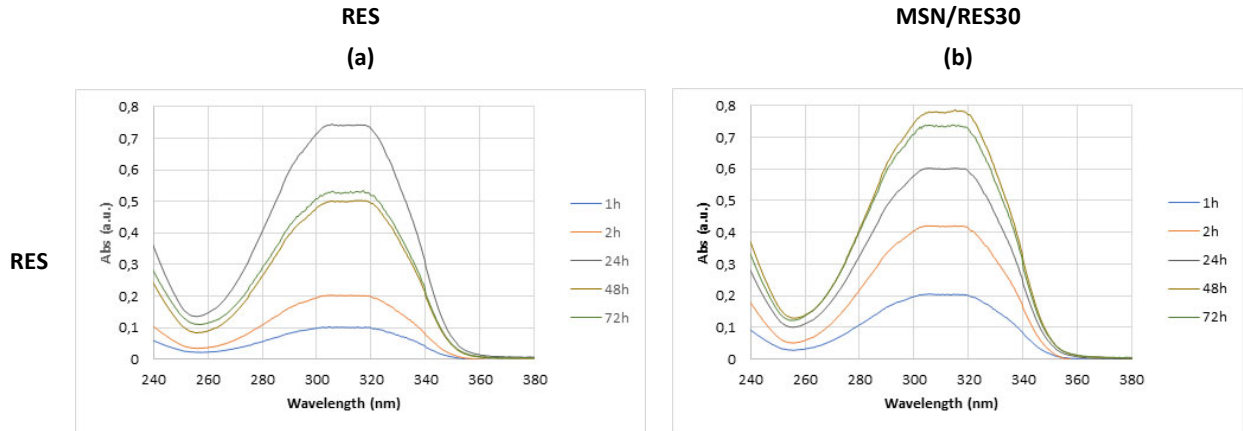**Figure S1.** Calibration curve for RES quantification in PBS pH 7.4.
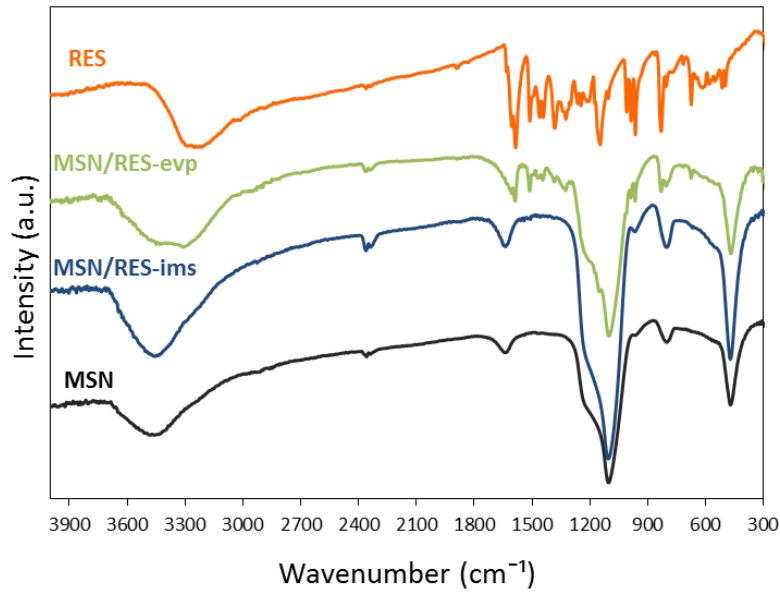

Figure S2. Calibration curve for RES quantification in PBS pH 5.2.

### B. Resveratrol stability to isomerization during release studies

Figure S3. UV-Vis spectra (240-380 nm) of aliquots extracted along time during RES release studies at pH 5.2 of the (a) non-encapsulated RES and (b) loaded sample MSN/RES30.

C. Comparison of immersion and evaporation loading methods

Figure S4. FTIR spectra of pristine MSNs, RES and loaded MSNs using the immersion (MSN/RES-ims) and the evaporation (MSN/RES-evp) methods. The amount of MSNs (100 mg) and RES (40 mg) available for loading was identical in both methods.
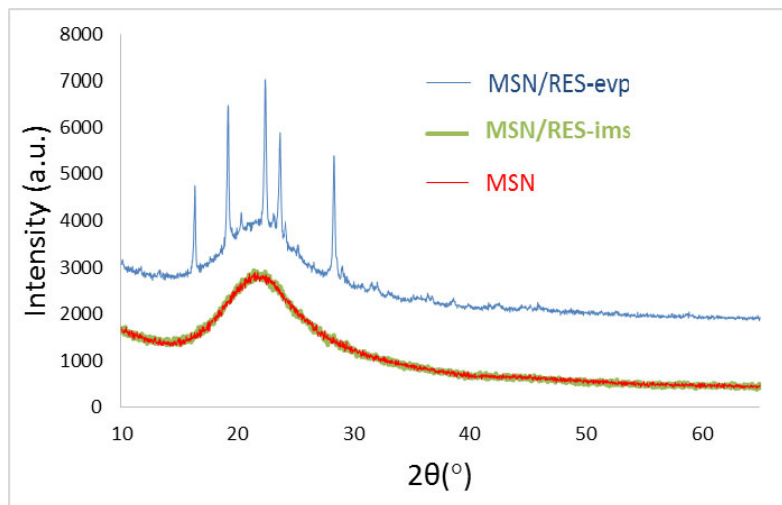
Figure S5. Wide angle XRD of pristine MSNs and loaded MSNs using the immersion (MSN/RES-ims) and the evaporation (MSN/RES-evp) methods.

D. Characterization of RES loaded MSNs

Table S1. Elemental analysis of MSNs and loaded samples MSN/RES30 and MSN/RES40

	MSNs	MSN/RES30	MSN/RES40
%C	0.040	20.21	32.47
%H	1.424	2.405	2.915

Table S2. Melting temperature and cristallinity degree of the samples.

	Tpeak ºC	Crystalinity (%)
RES	264.9	-
MSN/RES30	226.7	15.3
MSN/RES40	242.5	19.4