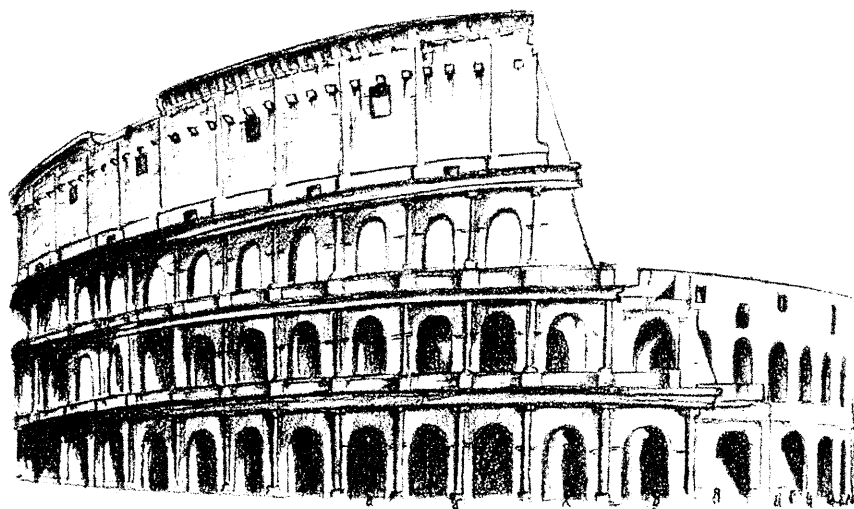


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Intracellular transport of doxorubicin through block copolymer-coated multi-walled carbon nanotubes

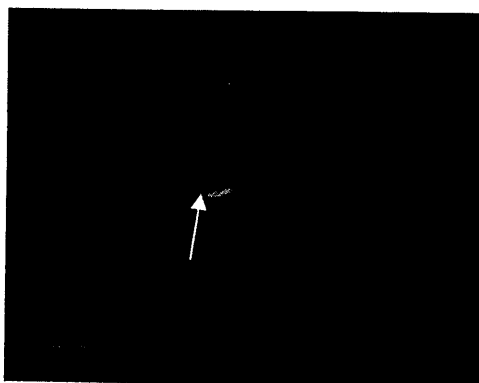
A. Fontana^a, A. Di Crescenzo^a, D. Velluto^b, J. A. Hubbell^b

^a *Dipartimento di Scienze del Farmaco, Università "G. d'Annunzio", Via dei Vestini, I-66013 Chieti, Italy*

^b *Institute for Bioengineering and Institute for Chemical Sciences and Engineering, École Polytechnique Fédérale de Lausanne (EPFL), Station 15, CH-1015 Lausanne, Switzerland*

e-mail fontana@unich.it

The biocompatible amphiphilic diblock copolymer poly(ethylene glycol-*bl*-propylene sulfide) PEG₄₄PPS₂₀ has been used¹ for the preparation of stable dispersions of multi-walled carbon nanotubes (MWCNTs). The obtained PEG₄₄PPS₂₀-coated MWCNTs have been used as carriers of doxorubicin (DOX) to cells. It has been demonstrated that the loading of DOX can be tuned at will by varying the concentration of the block copolymer adsorbed onto the nanotube surface. The obtained multi-walled carbon nanotube-based systems show enhanced cytotoxic activity with respect to non-vehicled doxorubicin.



¹ E. M. Di Meo, A. Di Crescenzo, D. Velluto, C. O'Neil, D. Demurtas, J. A. Hubbell and A. Fontana, *Macromolecules*, 2010, **43**, 3429.