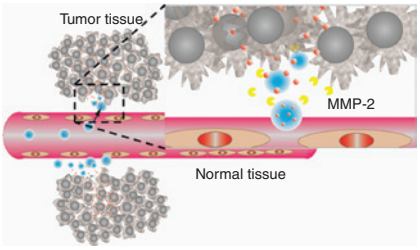
In this issue

Triantafyllos Stylianopoulos
Intelligent drug delivery systems for the treatment of solid tumors

DOI 10.1515/ejnm-2015-0041
Eur. J. Nanomed. 2016; 8(1): 9–16

Review: Physiological barriers posed by the abnormal tumor micro-environment inhibit delivery of nanoparticles to solid tumors. Intelligent drug delivery systems can overcome some of these barriers and increase treatment efficacy.

Keywords: cancer nanomedicine; design considerations; drug delivery barriers; tumor micro-environment.

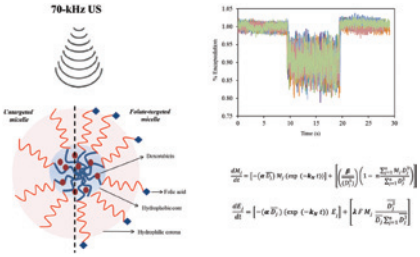


Ana M. Martins, Rafeeq Tanbour, Mohammed A. Elkhodiry and Ghaleb A. Husseini
Ultrasound-induced doxorubicin release from folate-targeted and non-targeted P105 micelles: a modeling study

DOI 10.1515/ejnm-2015-0045
Eur. J. Nanomed. 2016; 8(1): 17–29

Original Article: A modeling approach was used to study the kinetics of doxorubicin release from folate-targeted and non-targeted Pluronic® P105 micelles, during 70-kHz ultrasonication, followed by its re-encapsulation once the ultrasound stimulus was turned off.

Keywords: cavitation; Dox; folic acid; micelles; Pluronic® P105; ultrasound.

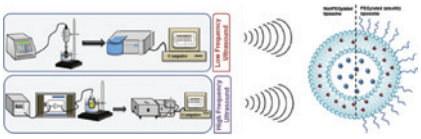


Salma E. Ahmed, Hesham G. Moussa, Ana M. Martins, Mohammad H. Al-Sayah and Ghaleb A. Husseini
Effect of pH, ultrasound frequency and power density on the release of calcein from stealth liposomes

DOI 10.1515/ejnm-2015-0046
Eur. J. Nanomed. 2016; 8(1): 31–43

Original Article: This work provides a comprehensive study on the effects of ultrasound frequency (20 kHz, 1 MHz and 3 MHz), power density and pH (5.2 versus 7.4) on the release of calcein from non-PEGylated and stealth-PEGylated liposomes.

Keywords: drug delivery; liposomes; PEGylated; power density; triggered release; ultrasound.

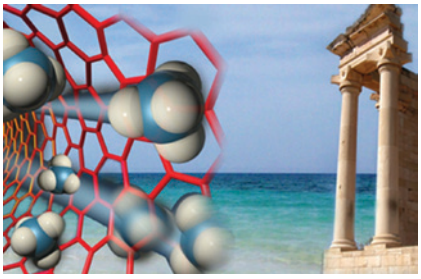


Costas Pitris and Andreani Odysseos
Nanotheranostics: realizing the great promise?

DOI 10.1515/ejnm-2015-0047
Eur. J. Nanomed. 2016; 8(1): 45–48

Meeting Report: Discussion of the recent developments and emerging challenges in nanotheranostics presented at the 2nd International Conference on Nanotheranostics, October 29 to November 1, 2015, Limassol, Cyprus.

Keywords: emerging challenges; nanotheranostics; toxicology.



Jyoti Verma, Henk A. Van Veen, Sumit Lal and Cornelis J.F. Van Noorden

Delivery and cytotoxicity of doxorubicin and temozolomide to primary glioblastoma cells using gold nanospheres and gold nanorods

DOI 10.1515/ejnm-2015-0025
Eur. J. Nanomed. 2016; 8(1): 49–60

Original Article: We synthesized, minimally adherent, precisely dimensioned and uniformly coated, gold (core) silica (shell) nanorods and nanospheres that showed exceptional-chemotherapeutic drug induced-cytotoxicity in glioblastoma cells.

Keywords: drug delivery; gold nanoparticles; nanocarriers; nanomedicine and seed mediated growth; nanorods; nanospheres; theranostics.