

Smart nanocarriers for pH-triggered targeting and release of hydrophobic drug

Submitted by Emmanuel Lemoine on Fri, 07/18/2014 - 13:52

Titre Smart nanocarriers for pH-triggered targeting and release of hydrophobic drug

Type de publication Article de revue

Auteur Cajot, S. [1], Van Butsele, K. [2], Paillard-Giteau, A. [3], Passirani-Malleret, Catherine [4], Garcion, Emmanuel [5], Benoît, Jean-Pierre [6], Varshney, S.K. [7], J r me, Christine [8]

Editeur Elsevier

Type Article scientifique dans une revue   comit  de lecture

Ann e 2012

Langue Anglais

Pagination 4215-23

Volume 8

Titre de la revue Acta Biomaterialia

ISSN 1742-7061

R sum  en anglais

The use of hybrid pH-sensitive micelles based mainly on the (PEO)(129)(P2VP)(43)(PCL)(17) ABC miktoarm star copolymer as potential triggered drug delivery systems was investigated. Co-micellization of this star copolymer with a second copolymer labeled by a targeting ligand, i.e. biotin, on the pH sensitive block (poly-2-vinylpyridine) is considered here in order to impart possible active targeting of the tumor cells. Two architectures were studied for these labeled copolymers, i.e. a miktoarm star or a linear ABC terpolymer, and the respective hybrid micelles are compared in terms of cytotoxicity (cells viability) and cellular uptake (using fluorescent dye loaded micelles). Finally, the triggered drug release in the cytosol of tumor cells was investigated by studying, on the one hand, the lysosomal integrity after internalization and, on the other hand, the release profile in function of the pH.

URL de la notice <http://okina.univ-angers.fr/publications/ua3656> [9]

DOI 10.1016/j.actbio.2012.08.049 [10]

Liens

[1] [http://okina.univ-angers.fr/publications?f\[author\]=5845](http://okina.univ-angers.fr/publications?f[author]=5845)

[2] [http://okina.univ-angers.fr/publications?f\[author\]=5846](http://okina.univ-angers.fr/publications?f[author]=5846)

[3] [http://okina.univ-angers.fr/publications?f\[author\]=5988](http://okina.univ-angers.fr/publications?f[author]=5988)

[4] <http://okina.univ-angers.fr/c.passirani/publications>

[5] <http://okina.univ-angers.fr/emmanuel.garcion/publications>

[6] <http://okina.univ-angers.fr/j.benoit/publications>

[7] [http://okina.univ-angers.fr/publications?f\[author\]=5848](http://okina.univ-angers.fr/publications?f[author]=5848)

[8] [http://okina.univ-angers.fr/publications?f\[author\]=10425](http://okina.univ-angers.fr/publications?f[author]=10425)

[9] <http://okina.univ-angers.fr/publications/ua3656>

[10] <http://dx.doi.org/10.1016/j.actbio.2012.08.049>

Publié sur *Okina* (<http://okina.univ-angers.fr>)