
Submitted by Laurent Lemaire on Thu, 01/08/2015 - 10:15

Title: A review of the current status of siRNA nanomedicines in the treatment of cancer.

Type de publication: Article de revue

Auteur: Resnier, Pauline [1], Montier, Tristan [2], Mathieu, Véronique [3], Benoît, Jean-Pierre [4], Passirani-Malleret, Catherine [5]

Editeur: Elsevier

Type: Article scientifique dans une revue à comité de lecture

Année: 2013

Langue: Anglais

Date: 2013 Sep

Numéro: 27

Pagination: 6429-43

Volume: 34

Titre de la revue: Biomaterials

ISSN: 0142-9612

Mots-clés: Animals [6], Drug Delivery Systems [7], Genetic Therapy [8], Humans [9], Neoplasms [10], RNA Interference [11], RNA, Small Interfering [12]

Résumé en anglais: RNA interference currently offers new opportunities for gene therapy by the specific extinction of targeted gene(s) in cancer diseases. However, the main challenge for nucleic acid delivery still remains its efficacy through intravenous administration. Over the last decade, many delivery systems have been developed and optimized to encapsulate siRNA and to specifically promote their delivery into tumor cells and improve their pharmacokinetics for anti-cancer purposes. This review aims to sum up the potential targets in numerous pathways and the properties of recently optimized siRNA synthetic nanomedicines with their preclinical applications and efficacy. Future perspectives in cancer treatment are discussed including promising concomitant treatment with chemotherapies or other siRNA. The outcomes in human clinical trials are also presented.


DOI: 10.1016/j.biomaterials.2013.04.060 [14]

Lien vers le document: http://dx.doi.org/10.1016/j.biomaterials.2013.04.060 [14]

Autre titre: Biomaterials
