

Accepted Manuscript

Title: Transporter-targeted cholic acid-cytarabine conjugates for improved oral absorption

Author: Dong Zhang Dongpo Li Lei Shang Zhonggui He Jin Sun



PII: S0378-5173(16)30629-9
DOI: <http://dx.doi.org/doi:10.1016/j.ijpharm.2016.06.139>
Reference: IJP 15896

To appear in: *International Journal of Pharmaceutics*

Received date: 22-3-2016
Revised date: 17-6-2016
Accepted date: 30-6-2016

Please cite this article as: Zhang, Dong, Li, Dongpo, Shang, Lei, He, Zhonggui, Sun, Jin, Transporter-targeted cholic acid-cytarabine conjugates for improved oral absorption. *International Journal of Pharmaceutics* <http://dx.doi.org/10.1016/j.ijpharm.2016.06.139>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

<DOCHEAD>Short communication

<AT>Transporter-targeted cholic acid-cytarabine conjugates for improved oral absorption

<AU>Dong Zhang^{a,#}, Dongpo Li^{a,b,#}, Lei Shang Ph D^{c,**}

##Email##shanglei6677@163.com##/Email##, Zhonggui He^a, Jin Sun Ph D^{a,*}:

##Email##sunjin66@21cn.com##/Email##

<AU>

<AFF>^aDepartment of Pharmaceutics, School of Pharmacy, Shenyang Pharmaceutical University, No. 103, Wenhua Road, Shenyang, 110016, China

<AFF>^bState Key Lab of New-tech for Chinese Medicine Pharmaceutical Processes, Lianyungang, 222001, China

<AFF>^cSchool of Pharmacy, China Medical University, China

<PA>^{*}**Corresponding Author:** No. 59 Mailbox, Department of Biopharmaceutics, School of Pharmacy, Shenyang Pharmaceutical University, No. 103 of Wenhua Road, Shenyang 110016, China. Tel.Fax: 86-24-2398632 **<PA>**^{**}**Corresponding Author:** School of Pharmacy, China Medical University, Shenyang 110122, China. Tel.: Fax: +86-24-23986320.

[#]these authors contributed equally to this work

Graphical abatract

<ABS-HEAD>Abstract

<ABS-P>Cytarabine has a poor oral absorption due to its rapid deamination and poor membrane permeability. Bile acid transporters are highly expressed both in enterocytes and hepatocytes and to increase the oral bioavailability and investigate the potential application of cytarabine for liver cancers, a transporter- recognizing prodrug strategy was applied to design and synthesize four conjugates of cytarabine with cholic acid (CA), chenodeoxycholic acid (CDCA), hyodeoxycholic acid (HDCA) and ursodeoxycholic acid (UDCA). The anticancer activities against HepG2 cells were evaluated by MTT assay and the role of bile acid transporters during cellular transport was investigated in a competitive inhibition experiment. The *in vitro* and *in vivo*

Download English Version:

<https://daneshyari.com/en/article/5817643>

Download Persian Version:

<https://daneshyari.com/article/5817643>

[Daneshyari.com](https://daneshyari.com)