

Accepted Manuscript

A Basic Insight into Aptamer-Drug Conjugates (ApDCs)

Wenjing Xuan, Yongbo Peng, Zhengyu Deng, Tianhuan Peng, Hailan Kuai,
Yingying Li, Jiaxuan He, Cheng Jin, Yanlan Liu, Ruowen Wang, Weihong Tan



PII: S0142-9612(18)30575-1
DOI: 10.1016/j.biomaterials.2018.08.021
Reference: JBMT 18827
To appear in: *Biomaterials*
Received Date: 28 March 2018
Accepted Date: 06 August 2018

Please cite this article as: Wenjing Xuan, Yongbo Peng, Zhengyu Deng, Tianhuan Peng, Hailan Kuai, Yingying Li, Jiaxuan He, Cheng Jin, Yanlan Liu, Ruowen Wang, Weihong Tan, A Basic Insight into Aptamer-Drug Conjugates (ApDCs), *Biomaterials* (2018), doi: 10.1016/j.biomaterials.2018.08.021

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.

A Basic Insight into Aptamer-Drug Conjugates (ApDCs)

Wenjing Xuan, Yongbo Peng, Zhengyu Deng, Tianhuan Peng, Hailan Kuai,

Yingying Li, Jiaxuan He, Cheng Jin, Yanlan Liu, Ruowen Wang and Weihong Tan

Molecular Science and Biomedicine Laboratory, State Key Laboratory of Chemo/Biosensing and Chemometrics, College of Chemistry and Chemical Engineering, College of Life Sciences, Aptamer Engineering Center of Hunan Province, Hunan University, Changsha, Hunan, 410082, China

Institute of Molecular Medicine, Renji Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai Jiao Tong University, College of Chemistry and Chemical Engineering, Shanghai, 200240, China

Department of Chemistry and Department of Physiology and Functional Genomics, Center for Research at the Bio/Nano Interface, Health Cancer Center, UF Genetics Institute and McKnight Brain Institute, University of Florida, Gainesville, Florida 32611-7200, United States

Abstract: Aptamers are often compared with antibodies since both types of molecules function as targeting ligands for specific cancer cell recognition. However, aptamers offer several advantages, including small size, facile chemical modification, high chemical stability, low immunogenicity, rapid tissue penetration, and engineering simplicity. Despite these advantages, several crucial factors have delayed their clinical translation, such as concerns over inherent physicochemical stability and safety. Meanwhile, steps have been taken to make aptamer-drug conjugates, or ApDCs, a clinically practical tool. In this review, we highlight the development of

Download English Version:

<https://daneshyari.com/en/article/10999779>

Download Persian Version:

<https://daneshyari.com/article/10999779>

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