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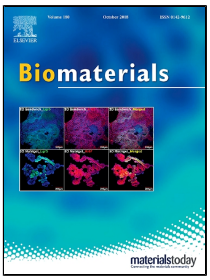

A Basic Insight into Aptamer-Drug Conjugates (ApDCs)

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

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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