



Advances in Aptamers for Cancer Targeting

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Message from the Guest Editor

Given their ability to bind with high-affinity and high-specificity cancer biomarkers, nucleic acid aptamers represent promising candidates as tools for new target discovery as well as for imaging probes, capture agents, and anticancer drug development. Aptamers exhibit similar functionality to antibodies but show several advantages over them, including easy and fast production, low costs, low immunogenicity, and high versatility. Due to their chemical nature, aptamers are suitable for receiving various chemical modifications to improve their features for clinical development. In addition, aptamers against cell surface receptors upon binding to their target may undergo receptor-mediated intracellular uptake; thus, they represent effective carriers for the targeted delivery of secondary reagents (e.g., fluorophores, magnetic nanoparticles, small interfering RNAs, microRNAs, anti-miRs, small drugs, and toxins) for both diagnostic and therapeutic purposes.

Original manuscripts and reviews dealing with the selection, characterization, development, and/or application of aptamers for the selective targeting of tumors are welcomed from experts of the topic.





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Message from the Editor-in-Chief

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