Special Issue

Advances in Aptamers for Cancer Targeting

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, antimiRs, 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.

Guest Editor

Dr. Silvia Catuogno
Institute Experimental Endocrinology and Oncology "Gaetano Salvatore" (IEOS), National Research Council (CNR), 80145 Naples, Italy

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International Journal of Molecular Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino
Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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