

Special Issue

Aptamers: Functional and Structural Studies

Message from the Guest Editor

Aptamers are short fragments of nucleic acids that form specific, unique, and stable structures that bind target molecules with high affinity and selectivity. They are often named chemical antibodies, but in contrast to antibodies, they are characterized by the ease of their synthesis and storage, low production costs and minor batch-to-batch variability, negligible immunogenicity, a broad repertoire of targets, and the feasibility of chemical modifications. Most aptamers are developed in vitro using a SELEX procedure; however, some naturally occurring aptamers were also sparsely found to be the elements of cell machinery. Due to the unquestionable benefits that they provide, aptamers can be applied as therapeutics, biosensors, or diagnostics in diverse areas including modern biotechnology, molecular biology, and biomedicine. This Special Issue aims to cover fundamental aspects of aptamers, changing trends in aptamer technology, and their innovative applications in biotechnological and biomedical fields. We welcome submissions of research articles and reviews.

Guest Editor

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