

Special Issue

Advances in Structural and Functional Properties of G-Quadruplexes and Aptamers

Message from the Guest Editors

G-quadruplexes (G4s) are one of the more stable alternative conformations that nucleic acids can adopt. G-rich nucleic acid sequences are inclined to form four-stranded structures, whose constitutive unit is the G-tetrad, a square planar arrangement of four guanosines stabilized by Hoogsteen hydrogen bonds. The notable thermal stability and structural variability of G4s constitute a valuable resource to design new aptamers with several applications in therapeutics, diagnostics, food quality control, drug development and delivery. Furthermore, suitable G4s are also endowed with catalytic properties and have proven to be able to induce enantioselectivity in several asymmetric reactions. This Special Issue aims to collect a selection of papers focused on advances in the field of G-quadruplexes, aptamers and relationships between their structural features and functionalities.

Guest Editors

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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.

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