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Nota di contenuto	About the Editors -- Preface to "Biophysics of Nucleic Acids Celebrating the 75th Birthday of Professor Kenneth J. Breslauer" -- Tigran V. Chalikian Tribute to Kenneth J. Breslauer -- Conceição A. Minetti, David P. Remeta, Keiji Hashimoto, Radha Bonala, Rajesh Chennamshetti and Xingyu Yin et al. Characterization of Aurintricarboxylic Acid(ATA) Interactions with Plasma Transporter Protein and SARS-CoV-2 Viral Targets: Correlation of Functional Activity and Binding Energetics -- Iztok Prislán, Tomaz Urbic and Natasa Poklar Ulrich Thermally Induced Transitions of d(G4T4G3) Quadruplexes Can Be Described as Kinetically Driven Processes -- Nabeel Tariq, Takuma Kume, Ujala N. Feroze and Robert B. Macgregor The Pressure Dependence of the Stability of the G-quadruplex Formed by d(TGGGGT) -- Robert T. Young, Luke Czaplá, Zoe O. Wefers, Benjamin M. Cohen and Wilma K. Olson Revisiting DNA Sequence-Dependent Deformability in High-Resolution Structures: Effects of Flanking Base Pairs on Dinucleotide Morphology and Global Chain Conguration -- Thomas Farquharson, Luca Agozzino and Ken Dill The Bootstrap Model of Prebiotic Networks of Proteins and Nucleic Acids -- Chuanying Chen and B. Montgomery Pettitt The Effects of Flexibility on dsDNA-dsDNA Interactions -- Ananya Paul, Abdelbasset A. Farahat, David W. Boykin and W. David Wilson Thermodynamic Factors That Drive Sequence-Specific DNA Binding of Designed,

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Sommario/riassunto

This Special Issue comprises 15 papers broadly outlining current trends in nucleic acid biophysics. It contains original research papers and reviews on structure, stability, and interactions of canonical and non-canonical nucleic acids. The authors describe the use of established, time-honored experimental and computational techniques as well as their more recently developed counterparts. Molecular insights that can be gained from the papers collected in this issue range from the fundamental to the applied with emphasis on biological functions and biomedical prospects of nucleic acids. The collection is not meant to be exhaustive, but to highlight recent advances from select laboratories worldwide. Nevertheless, it represents a useful guide for scientists who wish to familiarize themselves with biophysical topics in nucleic acid research. This Special Issue will be useful both for researchers who study fundamental aspects of nucleic acid structure, stability, and dynamics, as well as for those that are mainly interested in practical biological and biomedical applications of nucleic acids.
