Joint Special Issue

Z-DNA and Z-RNA: From Physical Structure to Biological Function

Message from the Guest Editors

This Special Issue will commemorate a half-century of discoveries related to the left-handed Z conformations of DNA and RNA. Such innovations are represented by a wide range of disciplines. Starting with the crystallization of Z-DNA in 1979, biophysical and biochemical studies have yielded many unanticipated and fascinating insights into this class of higher energy nucleic acid conformations.

Recent discoveries of biological functions for left-handed Z-conformations have demonstrated important roles in immunity against infectious agents and cancers. More generally, research on Z conformations underscore the impact of alternative DNA and RNA conformations in both normal cellular function and disease. They further emphasize that regulatory information is encoded by structure in addition to sequence.

We invite authors to help develop a roadmap to guide future discoveries by submitting a review at the leading edge of their respective fields, to either Molecules or IJMS, according to their preference as well as journal aims and scopes.

Guest Editors

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Deadline for manuscript submissions

closed (31 December 2022)

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