

Special Issue

The Role of Liquid Phase Separation in DNA Damage Repair

Message from the Guest Editors

Recently, it has been demonstrated that noncoding RNAs can be synthesized at the DNA damage site and that several DNA repair enzymes are endowed with RNA binding and processing abilities that can potentially explain the assembling of membraneless structures around the foci of damage. Emerging evidence has associated dysfunctional liquid–liquid phase separation (LLPS) events and neurodegeneration processes with the cellular response to DNA damage. We want to highlight the latest insights in LLPS involved in the DNA damage response (DDR), including but not limited to DDR protein unfolding events, interaction with RNAs, and new in vitro and in silico approaches for studying DDR-related phase partitioning. Furthermore, we want to shed light on a possible interplay between aberrant LLPS transition and DNA damage associated with neurodegeneration processes.

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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