

## Special Issue

# Topoisomerase Inhibitors: Future Perspectives and Challenges

### Message from the Guest Editors

The means by which topoisomerases regulate DNA (and RNA) topology by cleaving one or both strands of a duplex are questions which small molecules can help to answer. New anticancer and antibacterial compounds that stabilize DNA-cleavage complexes or compete for the ATP binding site of human or bacterial topoisomerases have been identified and are being developed. The anticipated approval of the NBTI gepotidacin to treat uncomplicated urinary tract infections (UTIs) and the successful completion of the SPT zoliflodacin Phase 3 trial to treat gonorrhea will expand the chemotype and resistance profiles of antibacterial topoisomerase drugs. The benefits for patients of new topoisomerase inhibitors depend on improving both target and mitigating non-target activities. Hence, this Special Issue will attempt to answer the question of what new chemotypes and classes of topoisomerase inhibitors will emerge as drugs in the 21st century. This Special Issue focuses on topoisomerase inhibitors and welcomes both original research articles and review papers to advance our understanding of topoisomerase inhibitors and their development primarily.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 December 2025)



## International Journal of Molecular Sciences

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