



Special Issue on:

"Natural Products: A Reservoir for Next-Generation Therapeutics."

Natural products have long been integral to drug discovery, contributing to many of the world's most important therapeutic agents. Despite the advent of synthetic compounds and advancements in biotechnology, the value of natural products continues to be indispensable, particularly in the face of mounting challenges posed by drug-resistant diseases, cancers, and other intricate health conditions. As we seek novel therapies to address these pressing issues, natural products remain a critical and abundant resource that warrants continued exploration.

This special issue highlights the most recent and innovative research on the discovery, isolation, and application of natural products in drug development. This issue will cover the following key themes:

1. **Discovery of New Natural Products:** Investigating new sources and techniques for discovering and extracting bioactive compounds from natural origins, such as plants, microorganisms, and marine life.
2. **Mechanisms of Action and Therapeutic Potential with Network Pharmacology:** Investigating the molecular and cellular mechanisms underlying the therapeutic effects of natural products, with a particular focus on cancer, microbial infections, and neurodegenerative diseases.
3. **Synthesis and Semi-Synthesis of Natural Product Derivatives with Network Pharmacology:** Highlighting advancements in synthetic biology and chemistry that enable the modification of natural products to improve their pharmacological effectiveness.
4. **Natural Products and Drug Resistance with Network Pharmacology:** Addressing the critical role of natural products in combating drug resistance, including their potential to serve as new leads for overcoming antimicrobial and anticancer resistance.
5. **Clinical Trials and Real-World Applications:** Discussing recent progress in translating natural product-based therapies from the laboratory to clinical practice, including ongoing and completed clinical trials.
6. **Sustainability and Ethical Considerations in Natural Product Sourcing:** Emphasizing the significance of sustainable practices and ethical considerations in sourcing natural products to ensure equitable access and preservation of biodiversity.
7. **Computer-aided drug designing**
8. **ADMET Estimation of Bioactive compounds**

This special issue will provide a comprehensive overview of the latest advancements in the field, offering insights into both opportunities and challenges associated with leveraging natural products for therapeutic innovation. Through the diverse themes, we aim to engage a broad readership, from researchers and practitioners to policymakers, in understanding the transformative potential of natural products in drug discovery.



Manuscript submission

- Authors are encouraged to submit high-quality manuscripts, including research articles, reviews, and short communications through the journal's online submission portal available here: <https://japsonline.com/submitmanuscript.php>
- Submissions should be well structured and written in clear English. All the submitted manuscripts will be screened for plagiarism via Turnitin and subjected to a double-blind peer review process.
- The accepted papers will be published as part of the special issue on the journal's website.
- Authors are requested to read the journal's policies and author guidelines and arrange their manuscripts as per the journal's instructions.
- Article processing charges: Regular article processing charges will apply to all the accepted articles. The details of APC are available at author guidelines page. <https://japsonline.com/authorsguideline.php>

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Submission Deadline: June 30, 2025

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Dr. Sarvesh Sabarathinam is an Assistant Professor at the Center for Global Health Research, Saveetha University, Chennai, India. He leads the Pharmaco-Netinformatics Lab, which focuses on natural product-based drug discovery through bioinformatics. He holds a Ph.D. in Pharmacy Practice, and his current research spans various areas including network pharmacology, molecular docking, and clinical research pharmacology.

Dr. Sabarathinam has an impressive academic record with over 50 publications in high-impact journals such as *Nature Scientific Reports*, *DMSRR*, *Future Science OA*, *Journal of Biomolecular Structure and Dynamics*, *Human Gene*, and *Obesity Medicine*. He has also led and contributed to several workshops and conferences centered on network pharmacology and drug development.

In addition to his academic and research achievements, Dr. Sabarathinam serves as an active editorial board member for *Obesity Medicine*, *Scientific Reports*, and *Heliyon*.



Dr. N. Manoj Kumar is a Senior Assistant Professor at SRM Institute of Science and Technology, Chennai, India. He holds an M.Tech in Biotechnology from VIT University, Vellore, and a Ph.D. in Biotechnology from SRM Institute, specializing in the production and characterization of a novel fibrinolytic enzyme from *Bacillus cereus*. In recognition of his contributions, he was named among the World's Top 2% Scientists by Elsevier and Stanford University in 2024. His research spans microbial biofuel production, drug delivery, nanotechnology, and antibiotic resistance in MDR strains causing nosocomial infections. With 49 Q1-ranked publications, 2,346 citations, an H-index of 30, and an i10-index of 35, he is a dedicated researcher. Additionally, he serves as a Guest Editor for two international journals and reviews for 45 prestigious journals. He holds lifetime memberships in esteemed organizations such as the Indian Science Congress, Biotech Research Society of India, Pharmacy Council of India, and the Indian Society of Human Genetics.



Dr. Ankita Chatterjee is an Assistant Professor in the Department of Biotechnology, School of Applied Sciences, REVA University, Bangalore, India. Her research interests broadly include ecotoxicology, bioremediation, bioleaching, biological treatment of xenobiotic compounds and impact of environmental pollutants in neurodegenerative disease. At present, her research group is focussed on ecotoxicology and the impact of toxic pollutants on gut-brain axis. She has 50 publications published in various international journals contributing to a h-index of 17. She has served as reviewer for various international journals. She has been in the research field for over 9 years and is keenly interested in scientific progress. She attained a B.Sc. degree in Microbiology (H) from The University of Burdwan, West Bengal, India followed by M.Sc. degree in Applied Microbiology from Vellore Institute of Technology, Vellore, Tamil Nadu, India. She has earned her Ph.D. degree from Vellore Institute of Technology, Vellore, Tamil Nadu. She is currently working as Assistant Professor for the past 4.3 years. She is involved in editing books with renowned publishers, such as Elsevier.