

Tentative Outline

Special Thematic Issue for the journal CNS & Neurological Disorders - Drug Targets

Title of the Thematic Issue: "Techniques of Drug Repurposing: Arts of delivering a new life to Herbs & Drugs"

Guest Editor: Dr. MD Noushad Javed

- **Scope of the Thematic Issue:**

Recent advancements translated the optimal use of different interdisciplinary technologies and knowledge for better insights of biomarkers roles and mechanisms of clinically significant diseases.

However, owing to contributed by different factors such as environmental factors, pollution, growing economic distress, lifestyle disbalances, and drug resistance owing to irrational usage of medicines; our current generation is facing highly complicated health issues as well. Consequently, emerging challenges of toxicity, regulatory concerns, highly expensive and time-consuming trials as well as a considerably very high rate of attritions with newly discovered drugs by the global pharmaceutical industries; not only delaying in introducing new treatment modalities but also these industries are facing lesser interest of investors; more specifically in rare diseases.

Hence, to circumvent the safety and toxicity challenges of newly discovered drugs subjected to be introduced in the markets; interests have been shifted to explore the mechanisms of those of off-shelved old but already labeled as drug so that such drugs can be repurposed in a totally different diseases owing to their well-established low risk in the nature as well potentially cutting time, resources, costs, and efforts in terms of introducing in the markets.

It's important that most of such failed drugs are although efficient in *in-vitro* stages but owing to permeability solubility and other poor stability types of pharmaco-technical challenges. Hence trends are not only limited to exploring mechanism but they are also fabricating of a suitable dosage form so that it would efficiently pay-off the therapeutic effective loads at the specific site of actions with minimal efforts.

Current issues hence focused on what are different technological advancements and techniques through which without compromising safety issue or by-passing toxicity related regulatory challenges.

Keywords: Drug Resistance, Adverse effects, Toxicity, Drug repositioning, Herbal Medicines, Nanotechnology, Drug delivery, Patents.

Sub-topics:

- In-silico and Simulation tools for predicting bioavailability, efficacy, safety, and toxicity concerns
- Crosslinking mechanism as a tool for repositioning of drugs
- Repurposed drugs against drug-resistant cases
- Regulatory and Toxicity challenges with newly discovered drugs
- Nanotechnology approaches for efficient & targeted delivery of drugs

Tentative titles of the articles:

- Repurposing of traditional herbs in neuroinflammatory disorders
- Recent trends in the repurposing of drugs against drug-resistant brain infections
- Neurobehavioral Impacts of bacterial biofilms: Emerging trends in brain delivery
- Current approaches in targeted delivery of repurposed nutraceuticals for brain disorders
- Tools and techniques for repurposing of drugs in the treatment of neuronal disorders
- Targeted drug delivery based repurposed drugs: Emerging roles, Challenges, Scopes, and emerging Trends

Schedule:

➤ Thematic issue submission deadline: **Oct 1st, 2023**

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