

CALL FOR PAPERS

Thematic Issue

THE DOUBLE-EDGED NEUROPHARMACOLOGY OF NEUROACTIVE COMPOUNDS: THERAPEUTIC MECHANISMS, TOXICOLOGICAL PROFILES, AND BEHAVIORAL SEQUELAE

MESSAGE FROM THE GUEST EDITOR

Dear Colleagues and Researchers,

It is my pleasure to invite researchers, pharmacologists, toxicologists, biochemists, and neuroscientists to contribute to this thematic issue of the **Majestic Journal of Pharmacology and Toxicology (MJPT)** entitled "The Double-Edged Neuropharmacology of Neuroactive Compounds: Therapeutic Mechanisms, Toxicological Profiles, and Behavioral Sequelae".

Every compound that acts on the brain carries two stories: one of therapeutic possibility, and one of potential harm. Often, both stories unfold through the same receptor, the same signaling cascade, and the same synapse. What separates a medicine from a toxin is frequently nothing more than dose, duration, and the biology of the subject receiving it. This thematic issue begins from the premise that pharmacology and toxicology are not separate disciplines that occasionally intersect, but rather a unified biology of neuroactive compound action. We are deeply interested in how a molecule binds, what it sets in motion, how the brain adapts or fails to adapt, and what the individual ultimately experiences and expresses in their behavior. This complete arc from molecular events to lived consequence is what this issue is designed to illuminate.

Instead of viewing neuroactive compounds solely as therapeutic tools or toxic agents, this issue encourages a nuanced, integrative understanding of their multifaceted effects on the brain. Bridging the gap between benefit and risk is a critical frontier in modern neuroscience and precision therapeutics. We seek to advance the growing literature on this dynamic relationship by clarifying the mechanisms underlying the effects of central nervous system agents on brain function and behavior.

I look forward to receiving your valuable contributions and to assembling a high-impact collection that advances scientific knowledge, preserves neural safety, and supports the future of translational neuroscience.

Sincerely,

Dr. Irfan Sajid (*Lead Guest Editor*)

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of Arts, Science and Technology, Pakistan

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Biography:

Dr. Irfan Sajid holds a Ph.D. in Biochemical Neuropharmacology and has over 19 years of teaching and research experience. He teaches undergraduate and postgraduate Biochemistry courses and has supervised numerous Ph.D. and M.Phil. scholars. His teaching emphasizes critical thinking, student-centered learning, and academic mentorship. His research interests focus on biochemical neuropharmacology, multidisciplinary research, and the integration of laboratory experimentation, data analysis, and innovative research methodologies to address contemporary scientific challenges.

SCOPE OF THE THEMATIC ISSUE

Every compound that acts on the brain carries two stories one of therapeutic possibility, one of potential harm. Often, both stories unfold through the same receptor, the same signaling cascade, the same synapse. What separates medicine from toxin is frequently nothing more than dose, duration, and the biology of the subject receiving it.

We are not interested in pharmacology and toxicology as separate disciplines that occasionally intersect. This issue begins from that premise. We are interested in the *unified biology* of neuroactive compound action in how a molecule binds, what it sets in motion, how the brain adapts or fails to adapt, and what the person ultimately experiences and expresses in their behavior. That full arc, from molecular events to lived consequence, is what this issue is designed to illuminate.

We welcome original research articles, systematic reviews, meta-analyses, and perspective papers that operates at any point along that arc molecular, neurochemical, biochemical, cellular, systems, or behavioral, provided it is honest about mechanism, from mainstream prescription medications and drugs used off label, to natural substances and novel drug developments. However, demonstrating the occurrence is the beginning. The possibility to explain why and how this occurs is by means of science only. This Issue aims to advance some of the growing literature on the dynamic relationship between therapeutic efficacy and neurological risk, by clarifying the mechanisms underlying the effects of compounds that interact with the nervous system on brain function and behavior. High quality contributions on all facets of molecular, cellular, biochemical, behavioral and translational neuroscience, particularly on the pharmacological activity and toxicological effects are welcome.

Key Objectives:

- ▶ To better understand the molecular and neurochemical based therapeutic properties of the neuroactive compounds
- ▶ To study the neurotoxic liabilities of acute and chronic exposure to neuroactive compounds
- ▶ To explore the behavioral consequences of drugs and brain damage
- ▶ To find biomarkers that are predictive of therapeutic response and neurotoxicity
- ▶ To encourage more strategies for translation that maximize therapeutic effectiveness while minimizing toxicity and preserve neural safety

Suggested Research Areas:

- ▶ Neuropharmacology and behavioral pharmacology
- ▶ Neurotransmitter modulation and synaptic plasticity
- ▶ Mechanisms of neurotoxicity and neuroprotection
- ▶ Oxidative stress, neuroinflammation, and mitochondrial dysfunction
- ▶ Natural products and phytochemicals targeting the central nervous system
- ▶ Safety and efficacy evaluation of neuroactive agents
- ▶ Drug-induced cognitive, emotional, and behavioral alterations
- ▶ Biomarkers of neurotoxicity and therapeutic response
- ▶ Experimental models of neurological and neuropsychiatric disorders
- ▶ Translational and integrative approaches in brain-targeted therapeutics

Important Dates

- ▶ Call for Papers Release: July 01, 2026
- ▶ Manuscript Submission Deadline: December 31, 2026

Submit via the Online Journal System (OJS)

Authors are invited to submit original research and review articles that align with the theme of this special issue and must comply with MGPT author guidelines. Authors should submit their manuscripts via the journal's Online Journal System (OJS).

Submission Link: <https://ma-pharmacology.cmpublisher.com/index.php/ojs/login>

Note: All submissions must include a formal cover letter stating the name of the thematic issue and guest editors. All papers will undergo a double-blind peer review process according to MJPT editorial standards to ensure high-quality contributions.

Publication Fee: No submission fees or article processing charges apply to this thematic issue.

For inquiries, please contact [gracemitchell.pharma@cmpublisher.com] or [ma-pharmacology@cmpublisher.com]