MAJESTIC JOURNAL OF PHARMACOLOGY AND TOXICOLOGY (MJPT)

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CALL FOR PAPERS – THEMATIC ISSUE

Next-Generation Predictive Models for Drug Discovery, Pharmacology, and Toxicology

MESSAGE FROM THE GUEST EDITOR

Dear Colleagues and Researchers,

It is my pleasure to invite researchers, clinicians, pharmacologists, toxicologists, bioengineers, computational scientists, and biotechnology professionals to contribute to this thematic issue of the **Majestic Journal of Pharmacology and Toxicology (MJPT)** entitled "**Next-Generation Predictive Models for Drug Discovery, Pharmacology, and Toxicology**."

The pharmaceutical and biomedical research landscape is undergoing a profound transformation driven by advances in artificial intelligence, computational modeling, organoid technologies, organ-on-chip systems, multi-omics platforms, and precision medicine approaches. While conventional preclinical models have contributed substantially to therapeutic development, they often demonstrate limited predictive power for human efficacy and safety, leading to costly failures during clinical translation.

Emerging predictive technologies offer unprecedented opportunities to improve translational accuracy, accelerate drug development, reduce reliance on animal testing, and enhance patient-centered therapeutic innovation. Human-relevant experimental systems, coupled with AI-enabled analytics and advanced bioengineering platforms, are creating new paradigms for evaluating efficacy, toxicity, pharmacokinetics, and therapeutic response.

This thematic issue seeks to showcase cutting-edge research, innovative methodologies, and comprehensive reviews that advance predictive pharmacology and toxicology. We particularly welcome interdisciplinary contributions that bridge experimental biology, computational science, engineering, and clinical translation to support safer, more efficient, and more personalized therapeutic development.

I look forward to receiving your valuable contributions and to assembling a high-impact collection that advances scientific knowledge and supports the future of translational medicine and regulatory science.

Sincerely,

Dr. Jie Huang (*Lead Guest Editor*)
President at American Association for Scientist Entrepreneurship (AASE)
Chief Scientist and CEO at CSTEAM Biotechnology, USA
Email: csteam7890@hotmail.com

Biography of Dr. Jie Huang:

Dr. Jie Huang, MD, PhD, is a physician-scientist, biotechnology entrepreneur, and scientific editor whose work spans translational medicine, immunology, oncology, advanced biological models, and biotechnology innovation.

He is the Founder and President of the American Association for Scientist Entrepreneurship (AASE) and Founder and CEO of CSTEAM Biotechnology in the United States.

His current work focuses on predictive and human-relevant approaches to biomedical research and drug development, with particular interests in predictive biological systems, organoids, organ-on-chip technologies, advanced biological models, drug efficacy and safety evaluation, cell and gene therapy, and the integration of computational and quantitative approaches with experimental biology.

Through his academic, editorial, and biotechnology activities, Dr. Huang works at the interface of basic research, translational science, and technology development. His interests include improving the ability of preclinical models to predict human therapeutic efficacy and toxicity and advancing next-generation approaches that can support more reliable translation from experimental research to drug development.

As Lead Guest Editor of this thematic issue, Dr. Huang aims to bring together researchers across pharmacology, toxicology, bioengineering, computational science, and translational medicine to examine how next-generation predictive models can improve drug discovery, safety assessment, and human-relevant biomedical research.

Once these revisions have been incorporated, I will be pleased to approve the final flyer and begin promoting the special issue through my professional network and LinkedIn.

Thank you very much for your assistance and continued support. I look forward to working with you and the MJPT Editorial Office on a successful special issue.

Kind regards,

Jie Huang, MD, PhD
Lead Guest Editor
Thematic Special Issue: "Next-Generation Predictive Models for Drug Discovery, Pharmacology, and Toxicology"

Founder & President
American Association for Scientist Entrepreneurship (AASE)
Founder & CEO
CSTEAM Biotechnology, USA

SCOPE OF THE THEMATIC ISSUE

The development of predictive and human-relevant experimental systems is reshaping modern pharmacology and toxicology. Traditional preclinical models frequently fail to accurately predict human therapeutic efficacy, toxicity, and translational outcomes, contributing to high clinical failure rates and increasing development costs. Consequently, there is growing interest in next-generation predictive technologies capable of improving translational reliability and accelerating safer drug development.

This thematic issue aims to highlight emerging interdisciplinary approaches that are transforming drug discovery, pharmacological evaluation, and toxicological assessment. The issue will cover organoids, organ-on-chip systems, microphysiological platforms, AI-assisted pharmacology, computational toxicology, spatial and single-cell technologies, translational bioengineering, predictive biomarkers, exosome-based therapeutics, and advanced humanized disease models. Particular emphasis will also be placed on translational and regulatory perspectives, including New Approach Methodologies (NAMs), alternatives to animal testing, precision medicine frameworks, and predictive systems for evaluating therapeutic efficacy and safety. Both original research articles and comprehensive review papers will be welcomed.

Recommended Topics/Sub-themes:

- AI-driven predictive pharmacology
- Organoid and organ-on-chip systems
- Precision pharmacology and personalized medicine
- Translational bioengineering platforms
- Predictive biomarker development
- FDA NAMs-related technologies
- Multi-omics platforms in drug development
- Computational toxicology
- Human-relevant disease models
- Exosome-based therapeutics
- Spatial biology and single-cell pharmacology
- Cell and gene therapy evaluation models
- Alternatives to animal testing
- Safety evaluation of advanced therapeutics

Important Dates

- Call for Papers Release: September 2026
- Manuscript Submission Deadline: December 31, 2026
- First Round Peer Review Completion: February 2027
- Revised Manuscript Submission: March 2027
- Final Acceptance: April 2027
- Online Publication: May–June 2027

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 **MJPT** 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

Guideline for Authors: https://cmpublisher.com/journal/ma-pharmacology-and-toxicology/guideline-for-authors/

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 the MJPT editorial office at

[gracemitchell.pharma@cmpublisher.com] or [ma-pharmacology@cmpublisher.com]