

Special Issue

Machine Learning Methods for Medicinal Chemistry

Message from the Guest Editor

The concept of artificial intelligence (AI) is increasingly being used in predictive modeling and optimization of medical chemistry processes in drug discovery. One of the main goals of AI is to create machine learning (ML) platforms that enable gradual improvement in model performance. This Special Issue aims to introduce examples showing how current ML methods are used in various areas of the drug discovery process. The focus will be placed on some achievements using newer machine learning methods in designing tools capable of generating and assessing synthetic structures, as well as ligand binding and ADMET models. Perspective topics include (but are not limited to):

- Recent advances in AI/ML algorithms;
- Applications of ML in structure generation;
- Prediction of target protein in drug design;
- Homology modeling/prediction of protein folding;
- Machine learning approaches to predicting protein–ligand interactions;
- In silico toxicity and ADMET modeling to optimize molecular properties;
- ML in drug metabolite and metabolic site prediction;
- ML-based biomarker discovery;
- Use of ML in synthesis planning.

Guest Editor

Dr. Krzysztof Marciniak

Department of Organic Chemistry, Medical University of Silesia,
Jagiellonska 4, PL-41200 Sosnowiec, Poland

Deadline for manuscript submissions

closed (25 February 2024)



Pharmaceuticals

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 7.7
Indexed in PubMed



mdpi.com/si/141421

Pharmaceuticals
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
pharmaceuticals@mdpi.com

[mdpi.com/journal/
pharmaceuticals](https://mdpi.com/journal/pharmaceuticals)





Pharmaceuticals

an Open Access Journal
by MDPI

Impact Factor 4.8
CiteScore 7.7
Indexed in PubMed



[mdpi.com/journal/
pharmaceuticals](https://mdpi.com/journal/pharmaceuticals)



About the Journal

Message from the Editor-in-Chief

Because of your expertise in the field of drug sciences, I kindly invite you to consider publishing your current work, in the form of a research article or a review, in the open access electronic journal *Pharmaceuticals*. *Pharmaceuticals* is characterized by an active editorial board and a dynamic editorial staff. Manuscripts are peer-reviewed and a final decision is provided to authors within 4–6 weeks after submission. Papers are published on the web immediately after acceptance. For details on the submission process or any other matter, please do not hesitate to contact us. We hope to handle your contribution to *Pharmaceuticals* soon.

Editor-in-Chief

Prof. Dr. Amélia Pilar Rauter

Departamento de Química e Bioquímica (DQB) e Centro de Química Estrutural (CQE), Institute of Molecular Sciences, Faculdade de Ciências, Universidade de Lisboa, Lisboa, Portugal

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Pharmaceutical Science)