

Special Issue

Artificial Intelligence & Deep Learning Approaches for Structural Bioinformatics

Message from the Guest Editors

Deep learning methods have revolutionized the field of machine learning since their rapid development in 2012. These methods have shown spectacular performances in fields as varied as digital image recognition and interpretation, natural language processing, and Go gaming. These approaches have made it possible to envisage the treatment of complex bioinformatics problems, especially in the field of structural bioinformatics. Deep learning methods open up new avenues of research, to deal with problems which up until recently were still considered too complex or fields which were no longer progressing. Recently, problems as varied as prediction of secondary structures, model quality assessment, and structure prediction determined from co-evolutionary constraints have demonstrated striking improvement thanks to deep learning approaches. In this Special Issue, we propose a broad overview of recent advances in various fields of structural bioinformatics that have benefited from the contributions of Deep Learning and Artificial Intelligence.

Guest Editors

Dr. Alexandre G. De Brevern

Department of Biological Research on the Red Blood Cells, INTS, INSERM UMR_S 1134, Université de Paris, Université de la Réunion, 75739 Paris, France

Prof. Jean-Christophe Gelly

Department of Biological Research on the Red Blood Cells, INTS, Univ of Paris, Paris, France

Deadline for manuscript submissions

closed (31 March 2021)



International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



mdpi.com/si/45354

*International Journal of
Molecular Sciences*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

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





International Journal of Molecular Sciences

an Open Access Journal
by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle
Marche, Via Ranieri 65, 60100 Ancona, Italy

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, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore
- Q1 (Organic Chemistry)