



## Application of Artificial Intelligence for Medical Research

Guest Editor:

**Dr. Ryuji Hamamoto**

National Cancer Center Research  
Institute, Tokyo, Japan

Deadline for manuscript  
submissions:

**closed (31 October 2020)**

### Message from the Guest Editor

In the enlightened times of the postgenomic era, we could get a large quantity of omics data such as genome, epigenome, transcriptome, proteome, medical images with detailed clinical information. However, it was technically difficult to efficiently analyze enormous medical data in an integrated manner until recently. On the contrary, the current progress of the artificial intelligence (AI) technology, which is mainly based on the development of Machine Learning and computer performance, enables the integrated analysis of medical big data. In particular, deep learning, which is part of a broader family of Machine Learning methods based on learning data representations, is responsible for many of the recent breakthroughs in AI, and it has already been reported that deep learning outperformed humans in many tasks. With this Special Issue, we aim to cover topics on application of artificial intelligence for medical research, in particular focusing on integrated analysis of medical omics data using Machine Learning and Deep Learning. The submissions presented in this Special Issue will include review manuscripts, research manuscripts, and short contributions.





an Open Access Journal by MDPI

## Editors-in-Chief

### **Prof. Dr. Peter E. Nielsen**

Department of Cellular and  
Molecular Medicine, Faculty of  
Health and Medical Sciences,  
University of Copenhagen,  
Blegdamsvej 3C, DK-2200  
Copenhagen, Denmark

### **Prof. Dr. Lukasz Kurgan**

Department of Computer  
Science, Virginia Commonwealth  
University, Richmond, VA 23284,  
USA

## Message from the Editorial Board

*Biomolecules* is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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

**Journal Rank:** JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Biochemistry)

## Contact Us

*Biomolecules* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/biomolecules](http://mdpi.com/journal/biomolecules)  
[biomolecules@mdpi.com](mailto:biomolecules@mdpi.com)  
[X@Biomol\\_MDPI](https://twitter.com/Biomol_MDPI)