

## Special Issue

# Advances in Large Language Models for Biological and Medical Applications

### Message from the Guest Editors

The rapid advancement of Large Language Models (LLMs) has revolutionized numerous fields, with the biological and medical applications standing out as particularly transformative. LLMs, empowered by their ability to process and generate human-like text, offer unprecedented opportunities for enhancing patient care, accelerating biomedical research, and improving healthcare management.

This Issue underscores the critical importance of transparency and factual accuracy in generative AI approaches, ensuring that LLM-driven solutions are reliable and trustworthy for clinical and biomedical applications. Research exploring the application of LLMs in under-represented languages and efforts to bridge health disparities is highly encouraged. By fostering comprehensive and inclusive dialogue, this Special Issue aims to advance the integration of LLMs in biological and medical research, ultimately contributing to improved healthcare outcomes globally.

### Guest Editors

Dr. Irene Li

Information Technology Center, University of Tokyo, Tokyo, Japan

Dr. Ruihai Dong

Computer Science Department, University College Dublin, Dublin, Ireland

### Deadline for manuscript submissions

31 October 2025



## Big Data and Cognitive Computing

an Open Access Journal  
by MDPI

Impact Factor 4.4  
CiteScore 9.8



[mdpi.com/si/220272](https://mdpi.com/si/220272)

*Big Data and Cognitive Computing*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[bdcc@mdpi.com](mailto:bdcc@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)  
**BDCC**





# Big Data and Cognitive Computing

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.4  
CiteScore 9.8



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



## About the Journal

### Message from the Editor-in-Chief

*Big Data and Cognitive Computing (BDCC)* is a scholarly online journal which provides a platform for big data theories with emerging technologies on smart clouds and exploring supercomputers with new cognitive applications. It is a peer-reviewed, open access journal that publishes high quality original articles, reviews and short communications. The primary aims of this journal are to encourage contributions of high quality scientific papers relating to data management and analytics in industry, such as manufacturing, healthcare, education, media and business, data mining, and cognitive science. There is no restriction on the maximum length of the papers.

---

### Editor-in-Chief

Prof. Dr. Min Chen

School of Computer Science and Engineering, South China University of Technology, Guangzhou 510641, China

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within Scopus, ESCI (Web of Science), dblp, Inspec, Ei Compendex, and other databases.

#### Journal Rank:

JCR - Q1 (Computer Science, Theory and Methods) /  
CiteScore - Q1 (Computer Science Applications)