Tentative Outline

Special/Thematic Issue for the Journal
Combinatorial Chemistry & High Throughput Screening

Intelligent Data-driven Problem-solving and Decision-making for Healthcare and Bioinformatics Challenges

Guest Editor: Dr. Pan Zheng
Co-Guest Editors: Dr. Jing Dong, Dr. Bin Wang

Scope of the Thematic Issue:

It is said that data is the new oil of the digital era. The healthcare industry and bioinformatics are the fields that often generate a large amount of data. Making sense of the data is particularly crucial to both solving problems and making decisions in the area. With the recent development and advancement in data science, data analytics and artificial intelligence, advanced data analysis and processing methods are posing new opportunities for healthcare problems that were previously hard to answer. The problems often include diagnostics and screening, healthcare service quality enhancement, treatment cost reduction, medical resource optimisation and so on. The data in healthcare and bioinformatics frequently have distinctive features, such as sensitive, high practical values, complex, large in size, and multi-dimensional, all of which add to the interest of the research. Descriptive (including diagnostic), predictive, and prescriptive analytics are the three types of analytics used in data-related problems. There are ongoing explorations of developing more delicate methods and algorithms of those three types. Moreover, techniques and data curation, wrangling, sharing and storage are equally important in the field.

The special issue aims to receive studies that reflect and address the latest advancement in data-related methods that focus on the challenges in the healthcare and bioinformatics fields. Particular emphasis is placed on novel and intelligent methods tackling the practical issues in the area.

Keywords: healthcare data, bioinformatics data, data analytics, decision making, medical data, diagnostic analysis.

Sub-topics:

- Patient behaviour data analysis
- Data-driven case studies in healthcare;
- Quality of life studies in healthcare;
- Medical data(image and non-image) feature analysis
- Symptoms-related patterns detection and recognition
- Intelligent medical diagnosis
- Smart health system
- Clinical/patient record
- Novel intelligent algorithms using healthcare data
- Healthcare data processing
- Protein structure analytics prediction,
- Homology search,
- Multiple alignment phylogeny construction,
- Genomic sequence analysis,
- Gene-finding
- DNA data analysis
- DNA Computing

Schedule:

➢ Complete Thematic issue submission deadline: **November 30th, 2023**

Contacts:

        Guest Editor Name: *Dr. Pan Zheng, PhD*
        Affiliation: *University of Canterbury*
        Email**:** pan.zheng@canterbury.ac.nz

        Co-Guest Editor Name: *Dr. Jing Dong, PhD*
        Affiliation: *Dalian University*
        Email**:** dongjing@dlu.edu.cn

        Co-Guest Editor Name: *Dr. Prof Bin Wang, PhD*
        Affiliation: *Dalian University*
        Email**:** wangbin@dlu.edu.cn

Any queries should be addressed to support@benthamexecutiveeditors.com