



## Advanced Artificial Intelligence in Medicine and Bioinformatics

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Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editors

Dear Colleagues,

With the development of artificial intelligence, some advanced AI technologies have widely been applied in medicine and bioinformatics, resulting in the emergence of smart medicine. Smart medicine aims to provide precise personalized medical services such as accurate diagnosis and the optimal treatment policy. To achieve this goal, many advanced AI techniques like machine learning, robotics, speech recognition, and natural language processing, together with cloud computing and privacy computing, should be proposed to analyze and process medical data and bioinformatics data for diagnostics and treatment. This Issue collects the ongoing research activities and clinical applications of AI technologies in the fields of medicine and bioinformatics. Topics of interest include, but are not limited to:

- AI-based medical/bioinformatics big data analysis models and algorithms;
- Privacy-aware medical/bioinformatics data analysis;
- Federated learning for medical/bioinformatics data;
- Natural language processing and knowledge discovery in biomedical data;
- Edge and cloud computing for digital healthcare;
- Security, trust, blockchain, and privacy in digital healthcare.





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## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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