

Special Issue

The Role of Artificial Intelligence Technologies in Health

Message from the Guest Editors

This Special Issue focuses on recent advances in AI applications for biomedical image and signal analyses, with particular emphasis on model explainability and the emerging paradigm of digital twins. We invite submissions that explore supervised, unsupervised, and self-supervised methods for segmentation, classification, and prediction in clinical domains such as radiology, neurology, cardiology, and oncology. Contributions addressing explainable AI (XAI) are especially encouraged, including interpretable deep learning architectures, attention mechanisms, and post hoc explanation techniques, aimed at improving trust in clinical settings. Furthermore, we seek research on AI-enabled digital twins and virtual patient-specific models that integrate real-time physiological data and computational simulations to support personalized diagnostics, treatment planning, and disease progression monitoring in the paradigm of precision medicine. By bridging algorithmic innovation with translational medicine, this Special Issue aims to highlight interdisciplinary research that could enable the adoption of AI technologies in real-world healthcare scenarios.

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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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