

Special Issue

Role of Machine and Deep Learning in Drug Screening

Message from the Guest Editors

The role of machine learning (ML) and deep learning (DL) in drug screening has emerged as a transformative force in addressing complex disease challenges. These technologies have proven especially effective in the discovery and optimization of therapeutic candidates (inhibitors) for high-priority diseases such as cancer, neurodegenerative disorders, infectious diseases, and metabolic conditions like diabetes. By leveraging large-scale biological and chemical datasets, ML and DL models are enabling precision in drug-target predictions, toxicity assessments, and virtual screening, significantly accelerating the pipeline for effective drug development. This Special Issue aims to gather state-of-the-art research and reviews that demonstrate the targeted application of ML and DL in drug screening, focusing on disease-specific use cases. It seeks to highlight advances in computational methodologies, their integration with experimental studies, and their impact on addressing unmet medical needs.

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Life (ISSN 2075-1729) is an international, peer-reviewed open access journal that publishes scientific studies related to fundamental themes in life sciences. Some papers are published individually, while others are submitted for inclusion in special issues with guest editors. You are invited to contribute a research article, essay, or a review to be considered for publication.

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