Special Issue

Machine Learning in Pathogen Discovery

Message from the Guest Editor

Infectious diseases caused by pathogenic microorganisms have long posed a significant threat to human health and well-being. Traditional methods for detecting and combating infectious diseases often struggle to keep pace with the rapidly evolving nature of pathogens. However, the emergence of machine learning offers new avenues for addressing these challenges. Machine learning algorithms can analyze extensive datasets from diverse sources, including genomic sequences, clinical records, and environmental samples. This capability enables the identification of patterns and trends that might be overlooked by conventional approaches. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Detection and forecasting of disease outbreaks.
- Prediction of drug resistance in strains.
- Identification of key genes or proteins in pathogens.
- Discovery of antimicrobial peptides.

Guest Editor

Dr. Hong Li

School of Life and Health Sciences, Hainan University, Haikou 570228, China

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Biology
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biology@mdpi.com

mdpi.com/journal/biology

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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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Research Programme in Molecular and Integrative Biosciences, Faculty of Biological and Environmental Sciences, University of Helsinki, P.O. Box 56, FI-00014 Helsinki, Finland

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