## Machine Learning and Data Analysis in Bioinformatics

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### Message from the Guest Editor

The field of biological research is generating vast amounts of high-dimensional data that require sophisticated analytical tools to uncover the hidden patterns and causal relationships that underlie biological processes. Unsupervised machine learning methods, such as clustering and dimensionality reduction techniques, have been widely used to identify subgroups within large datasets and to visualize complex data structures.

Recently, topological data analysis (TDA) has emerged as a powerful tool to analyze high-dimensional data and extract meaningful features. By focusing on the shape and structure of the data, rather than just the individual data points, TDA can identify topological features and structures in the data that traditional statistical methods may miss. Deep learning techniques have also shown great promise in identifying subtle patterns and relationships within large datasets.

In this Special Issue, we invite researchers to submit their original research articles, reviews, and perspectives on unsupervised machine learning methods, topological data analysis, and deep learning in the context of biological data.

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# Special Issue

## Editor-in-Chief

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## Message from the Editor-in-Chief

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