

## Special Issue

# New Sights of Mathematical Modeling in Biomedicine: Updates and Direction

### Message from the Guest Editor

In recent years, mathematical modeling and machine learning have spread to almost all fields. This Special Issue focuses on the latest advancements and future directions in mathematical modeling applied to the field of biomedicine. This issue brings together a collection of research papers and studies that highlight the emerging trends, innovative techniques, and novel applications of mathematical modeling in understanding and improving various aspects of biomedicine. It begins with an overview of the current state of mathematical modeling in biomedicine, discussing its strengths, limitations, and potential for future growth. Subsequent papers delve into specific areas of research, such as the modeling of gene regulatory networks, mathematical optimization for personalized cancer treatment, and the use of machine learning algorithms in predicting disease outcomes. Furthermore, this issue explores the integration of mathematical modeling with other scientific disciplines, such as genomics, proteomics, and systems biology, to create a comprehensive framework for understanding and studying biological systems.

### Guest Editor

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