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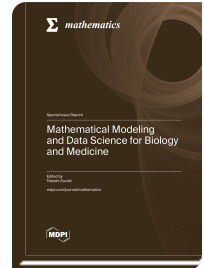
*Special Issue Reprint*

## **Mathematical Modeling and Data Science for Biology and Medicine**

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This reprint contains all of the articles that were accepted and published in the Special Issue of *Mathematics* titled "Mathematical Modeling and Data Science for Biology and Medicine". This Special Issue aims to highlight the development and growing application of mathematical models and data science in medicine, as well as their role in enhancing the understanding and clinical management of various diseases. The articles included in this Issue explore a diverse array of topics, such as cell differentiation, blood flow, tumor growth under virotherapy, chemotherapy treatment sequences for triple-negative locally advanced breast cancer, incidence-dependent management strategies against an SEIRS epidemic, important measures for the prevention and control of the COVID-19 epidemic, invadopodia formation in cancer cells, fitting parameters for multi-exponential diffusion-weighted MRI, and oncolytic virotherapy. These studies employ a variety of mathematical tools, including graph theory, transport equation, systems of ordinary differential equations, systems of nonlinear diffusion equations, free boundary problems, center manifold theory, and optimization techniques, to model a wide range of biological processes. In addition, medical applications are presented based on their mathematical analyses and numerical simulations. Through these articles, readers will gain valuable insights into the latest trends and applications of mathematical modeling in medicine.



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