



## Big Data and Mathematical Modeling in Biomedicine

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### Message from the Guest Editors

In recent years, Big Data have garnered significant interest from the scientific community. The concept of Big Data refers to extremely large and massive data sets that, because of their complexity and high degree of heterogeneity, cannot be analyzed and interpreted by means of conventional approaches (such as multivariate regression analyses and similar techniques). Being technically demanding and computationally challenging, they require particular efforts: New algorithms are required to effectively handle, manipulate, and coherently integrate data (the so-called “Big Data analytics”). These methodologies enable scholars to extract significant and relevant patterns in terms of trends, interactions, associations, and correlations. Big Data are classically characterized by three Vs: (i) velocity (in terms of the speed of data acquisition and data processing, Big Data as “fast data”); (ii) volume (in terms of amount of information); and (iii) variety (in terms of the number of sources and streams that can produce Big Data).





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## Message from the Editor-in-Chief

Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Discovery and advances in this research field play a critical role in providing a scientific basis for decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards. *IJERPH* provides a forum for discussion of discoveries and knowledge in these multidisciplinary fields. Please consider publishing your research in this high quality, peer-reviewed, open access journal.

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