## Editorial

The emergence of various epidemics have always been a great concern to not only human populations but at the same, they pose a serious threat to the survival of other terrestrial animals as well. In the past, almost all living species have witnessed wide spectrum of diseases caused by Bactria, Viruses, Protozoa etc., and to name a few, Tuberculosis, Hepatitis, AIDS, COVID-19, Aster Yellows, Anthracnose, Psoriasis, African Swine Fever and Avian Influenza.

Mathematical Biology has always been the saviour in many of the disease epidemics, when it comes to design and develop mechanisms for the control and eradication of the diseases. Many of the mathematical models that are proposed and expressed in the form of dynamical systems are very well applied in gaining adequate understanding of the long term dynamics of several diseases. For example the mathematical model proposed by Kermack and McKendrick in 1927 has emphasized the importance of threshold parameters such as  $\mathcal{R}_0$ , the basic reproduction number. It not only underlines the importance of herd immunity threshold but also states conditions for control and possible eradication.

The current special issue is devoted to the publication of recent advances in dynamical models and their applications to real wold problems. These articles endeavour in developing appropriate models and presenting the related analyses, highlighting their importance in tackling the problems related to Human Health Concerns, in particular.

Series Editors

July 2023