Strategies and opportunities for promoting bioinformatics in Zimbabwe

The increasing applications of advanced technologies in life sciences are fueling the growth of data from genome sequencing, functional genomics experiments, and macromolecular structure determination. Bioinformatics (sometimes interchangeably used with the term "computational biology") permits researchers to collect, manage, and sift through these massive data sets and derive scientific insight from them [1,2]. Bioinformatics holds a big promise in addressing many of the problems that are facing humanity today, including human health, agriculture, and the environment [3–8]. Consequently, the demand for skilled scientists with the ability to use information technology to solve life science problems has been rising steadily globally.

Similar to other developing countries in Africa, bioinformatics is slowly gaining popularity among Zimbabwean scientists. In this paper, we review the progress made by Zimbabwean scientists in bioinformatics and propose strategies for boosting bioinformatics capacity in the country. To our knowledge, this work is the first attempt to give a comprehensive report of bioinformatics activities in the country. As such, it is inevitable that our review may not be exhaustive and may fall short of mentioning or acknowledging groups or scientists who have contributed or presented their work on other platforms.