

Ngs Services Section Front Page

Next Generation Sequencing (NGS), a recently evolved technology, have served a lot in the research and development sector of our society. This novel approach is a newbie and has critical advantages over the traditional Capillary Electrophoresis based Sanger Sequencing. The advancement of NGS has led to numerous important discoveries, which could have been costlier and time taking in case of traditional CE based Sanger sequencing. NGS methods are highly parallelized enabling to sequence thousands to millions of molecules simultaneously. This technology results into huge amount of data, which need to be analysed to conclude valuable information. Specific data analysis algorithms are written for specific task to be performed. The algorithms in group, act as a tool in analysing the NGS data. Analysis of NGS data unravels important clues in quest for the treatment of various life-threatening diseases; improved crop varieties and other related scientific problems related to human welfare. In this review, an effort was made to address basic background of NGS technologies, possible applications, computational approaches and tools involved in NGS data analysis, future opportunities and challenges in the area.