Abstract

Cells are building blocks of life mainly responsible for all functional activities in the biological systems of all the organisms. Mapping cells and their activities in systems biology based on images is an entirely new way to organize information about cell function. The new format is based not on lists or chemical similarities but rather it is an image-based approach with partial manual activities that are to be involved together to form a graphical model. The objective of the paper is to propose a novel bioinformatics cells activities and mapping tool in order to facilitate the end-users to utilize those tools in an effective manner for representing cells mapping by manual contrive and constructing its activities in the biological systems for all the species. The tool that is to be developed is a novel tool for cell mapping based on cells images for researchers to represent the functionalities of the cell and various interactions within cells. The novel identification found from the research made on cell activities is to be made globally available for researches as a base for their research development. The database of his tool is used to store cell map related functionalities information based on the research made and also used to retrieve, search from the database. The web-based tool will help users to provide detailed information about cells interact and its reactivity in a graphical manner by means of tools present in the system. This also provides a means for the community for visualizing the internal activities of the cells in accordance to the disease and its reactivity to immune system. Cells reactivity to antiviral activity provides a way for further researches in the area of drug discovery and also researches in disease identification. This tool will be providing a base for carrying out further researches.

Reference


Index Terms

Computer Science

Information Systems
Key words

Bioinformatics

Image Processing

Systems Biology