Abstract

Image processing and computer modelling are important tools in most medical imaging domains, and have also drawn the attention of the biological community to biological imaging applications. To date, many of biological data analysis necessitate a considerable degree of human intervention. Manual procedures are based on subjective human interpretation, are prone to large variability between the human experts, are time consuming and are of high cost. Automated tools are, thus, important in achieving objective and repetitive analysis, accurate quantitative measurements and the analysis of increasing data volumes. The objective of the
present study is to develop an automatic tool to identify and classify the Rotavirus-A particles in digital microscopic images. Geometric features are used to identify and classify the Rotavirus-A particle. The proposed method yields 98% classification rate using 3σ classifier.

Reference


Index Terms

Computer Science

Pattern Recognition
Key words

Rotavirus-A
image segmentation
classification
image analysis
watershed segmentation
3σ classifier