Abstract

This study aims at automatic construction of cell lineage from time-lapse images of progenitor cells. In order to construct the cell lineage it is very useful to have an efficient cell tracking system. In this paper we have described a system for tracking neural progenitor cells in a sequence of images using multiple matching object method based on modified mahalanobis algorithm. This system produces the results including the position, shape, motility and ancestry of each cell in every frame, which helps in construction of cell lineage. The proposed method has been implemented to the sequence of image frames and the computational results of cell tracking are presented.

References

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Cell Lineage Construction of Neural Progenitor Cells


Index Terms

Computer Science  Artificial Intelligence

Keywords

Cell lineage  mapping  image segmentation  progenitor cell  tracking