Abstract

Goblet Cells identification in the chicken small intestine is generally carried out through a microscope directly. Although identification can be conducted in visual calculation, but in its implementation not only takes a lot of time and effort, but also is relatively subjective. In addition nowadays identification can also be done automatically by digital image processing. This method is in the type of image segmentation. Here the purpose of image segmentation is to separate objects (goblet cells) with other networks. The results of image segmentation are usually still eroded, even objects that stick or merge between several objects, as well as nose around objects and the presence of holes in the object. So that, the morphological operation is needed to improve the image. This study aims to determine the type of morphological operations in improving segmented image results to identify goblet cells of chicken intestine automatically. Erosion, dilation, image filling and open area morphological operations are used to improve segmented image results. In conclusion, we provide that the type of erosion morphology operations, dilation using disk types of 10 pixels, image filling with parameters "holes" and open area of 10 pixels have the greatest percentage of success in improving
segmented image results.

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Index Terms

Computer Science                Image Processing
Keywords

Goblet Cells Identification, Segmentation, Morphological Surgery.