результатов, но, возможно, в ближайшем будущем подобные полностью автоматизированные подходы станут общедоступными.

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METHODS FOR IMAGE ANALYSIS OF INTRACELLULAR STRUCTURES OF ACTIN LABELED WITH PHALLOIDIN

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A cell is a complex three-dimensional system, which possesses a number of highly dynamic structures with extended, rugged, and uneven morphology. The actin cytoskeleton consists of fibrillar and globular actin, as well as auxiliary proteins that regulate organization. The shape and the rearrangements of actin cytoskeleton are closely related to functioning of the cell. The ability to characterize these changes allows scientists to confirm or refute any hypotheses in the research. Obtaining a numerical equivalent of the actin cytoskeleton organization could help compare actin structures in biological experiments (example: exposure to biologically active substances). The review summarizes methods for analyzing images of intracellular actin structures labeled with phalloidin using ImageJ. The methods considered make it possible to obtain a quantitative characteristic of the organization of actin structures for further evaluation and comparison of experimental results.

Keywords: fibrillar actin, quantitative values of the organization of actin structures, Minkowski fractal dimension