

SUPER-RESOLUTION MICROSCOPY METHODS AND THEIR USE FOR VISUALIZATION OF VARIOUS CELL STRUCTURES

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Super-resolution microscopy is a powerful tool for visualizing various structures in cells of both eukaryotes and prokaryotes, including those with extremely small sizes. In recent years, a large number of such methods have been developed, which makes it possible to successfully solve various problems. At the same time, the high technical complexity of their implementation compared to traditional microscopy somewhat narrows the use of this tool in cell biology. The review examines and compares the main methods of super-resolution microscopy which most widely used in biology. In addition, there are examples of successful application of the described methods in order to visualize various structures in cells, including the results obtained by the authors of this review.

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