



cells



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Single Cell Analysis

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Cells are the most fundamental building block of all living organisms. The investigation of any type of disease mechanism and its progression still remains challenging due to cellular heterogeneity characteristics and physiological state of cells in a given population. The bulk measurement of millions of cells together can provide some general information on cells, but it cannot evolve the cellular heterogeneity and molecular dynamics in a certain cell population. Compared to this bulk or the average measurement of a large number of cells together, single-cell analysis can provide detailed information on each cell, which could assist in developing an understanding of the specific biological context of cells, such as tumor progression or issues around stem cells. Single-cell omics can provide valuable information about functional mutation and a copy number of variations of cells. Information from single-cell investigations can help to produce a better understanding of intracellular interactions and environmental responses of cellular organelles, which can be beneficial for therapeutics development and diagnostics purposes. This Special Issue is inviting articles related to single-cell analysis and its advantages, limitations, and future prospects regarding health benefits.



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