Special Issue

Single-Molecule Tracking for Live Cells

Message from the Guest Editor

We have measured the anomalous diffusion in human prostate cancer cells that were transfected with an Alexa633 fluorescent RNA probe and co-transfected with enhanced green fluorescent protein-labeled argonaute2 protein via laser scanning microscopy. The image analysis arose from diffusion based on a "twolevel system". The trap was an interaction site where the diffusive motion was slowed down. Anomalous subdiffusive spreading occurred at cellular traps. The cellular traps were not immobile. We demonstrated how the novel analysis method of imaging data resulted in new information about the number of traps in the crowded and heterogeneous environment of a single human prostate cancer cell. The imaging data were consistent with and explained by modern ideas of the anomalous diffusion of mixed origins in live cells. This Special Edition is about the single-molecule level versus the many-molecule level in single live cells and diluted liquids (solutions). We would appreciate if you would consider submitting a paper to this Special Edition of the journal Cells.

Guest Editor

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Deadline for manuscript submissions

31 January 2026



Cells

an Open Access Journal by MDPI

Impact Factor 5.2 CiteScore 10.5 Indexed in PubMed



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Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. Cells encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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