

Special Issue

Regulation of Global and Specific mRNA Translation during Cellular Division

Message from the Guest Editor

Protein synthesis is a multistep/multifactorial process of mRNA translation. The act of cellular division, a multistep/multifactorial process by itself, involves massive regulation at the levels of translation initiation and elongation. A combined global protein synthesis attenuation and temporal translation enhancement of specific mRNAs is essential for successful execution of mitosis and generation of immediate critical supply to the daughter cells. Microbes, early eukaryotes, animal cells and plant cells developed strategies to cope with various regulation challenges. Post-translation modification of kinases and translation factors largely govern their activity/availability. Temporal changes of RNA binding proteins; protein–protein and protein–RNA interactions regulate specific mRNA translation in a concerted manner to execute a fine-tuned program of protein synthesis to guarantee correct levels at the correct time. Despite accumulated knowledge about the role of trans-acting RNA elements and cis-acting factors, regulation of 5'cap-dependent and -independent translation during mitosis remains largely mysterious.

Guest Editor

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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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