



cells



*Special Issue Reprint*

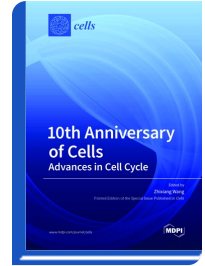
## 10th Anniversary of Cells—Advances in Cell Cycle

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To celebrate its 10th anniversary, the prestigious journal *Cells* launched a series of Special Issues in 2021. The Special Issue entitled “10th Anniversary of Cells—Advances in Cell Cycle” was launched together with other sister Special Issues under the umbrella “10th Anniversary of Cells.”

The cell cycle is a series of events that drives cells to divide and produce two new daughter cells. The typical cell cycle in eukaryotes is composed of the following phases: G<sub>1</sub>, S, G<sub>2</sub>, and M phases. Cell cycle progression is mediated by cyclin-dependent kinases (CDKs) and their regulatory cyclin subunits. CDKs, such as CDK4/6, CDK2, and CDK1 (also known as CDC2), are serine/threonine kinases with a wide variety of substrates. CDKs are activated mainly by binding to their cyclin partners, whose expressions rise and fall throughout the cell cycle to mediate the temporal activation of each CDKs. Various cell cycle checkpoints exist to ensure that critical processes are engaged prior to progression to the next phase. These cell cycle checkpoints are the G<sub>1</sub> (restriction) checkpoint, the G<sub>2</sub>/M DNA damage checkpoint, and the spindle assembly checkpoint (SAC).

This Special Issue attracted the attention of many scientists in the cell cycle field and consists of 10 high quality papers, including four research articles and six scientific reviews: a great success. The four research articles focus on various important topics of the cell cycle using a broad range of model organisms, including yeast, sea urchins, green algae, and human cancer cell lines.



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