

Cell Division

Of all the pathways in cellular function, perhaps none other pathway is more tightly controlled than the pathways involved in cell growth and division. These processes are collectively called the **cell cycle**. Cell cycles differ between prokaryotic and eukaryotic cells, and between the gametes and somatic cells of more complex eukaryotes. The cell cycle in prokaryotes is called **binary fission**. In eukaryotic cells the processes of the cell cycle in somatic cells can be organized into two broad categories: **interphase** and **mitosis**. The gamete cell cycle is called **meiosis** and is a topic of Bio 181. Interphase represents cell growth and where DNA is replicated, mitosis represents cell division. Cells will cycle through interphase then mitosis and back to interphase. The most important result of the cell cycle is the replication (copying) and movement of the DNA. To help facilitate this movement, the vast array of DNA will be organized into structures called chromosomes.

Chromosomes
Interphase



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