

# Cell Division

A fluorescence micrograph of a cell in the process of division. The cell is roughly circular and contains a dense network of fibers. A central region is brightly colored in purple and blue, representing the nucleus and chromosomes. Surrounding this central region are areas of red and green, representing different cytoskeletal components like microtubules and actin filaments. The overall appearance is that of a complex, dynamic cellular structure.

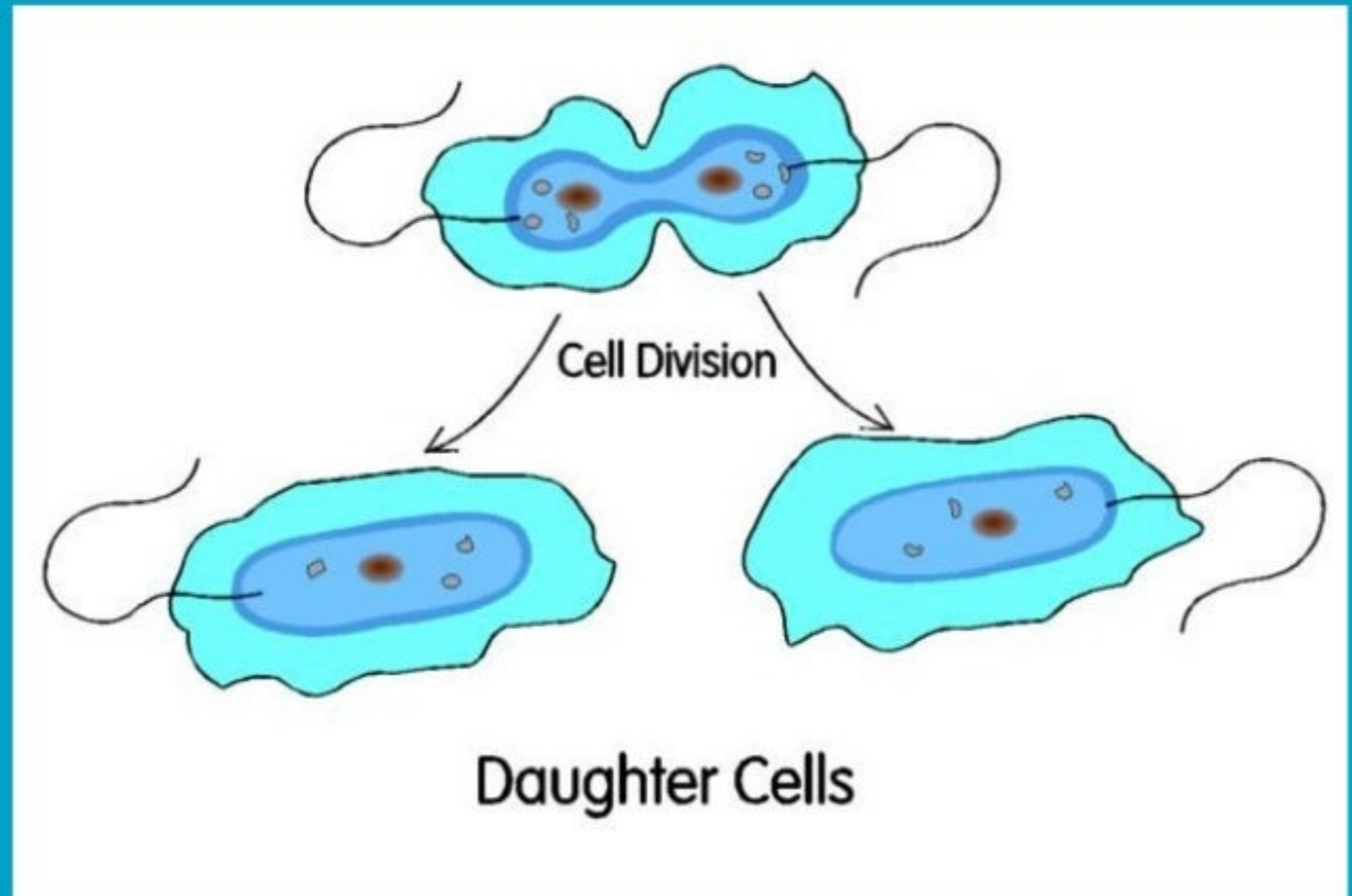
Mitosis & Meiosis

# Cell Division

What is it?

Why do  
Cells do it?

Why is it  
important to  
me?



# Cell Division

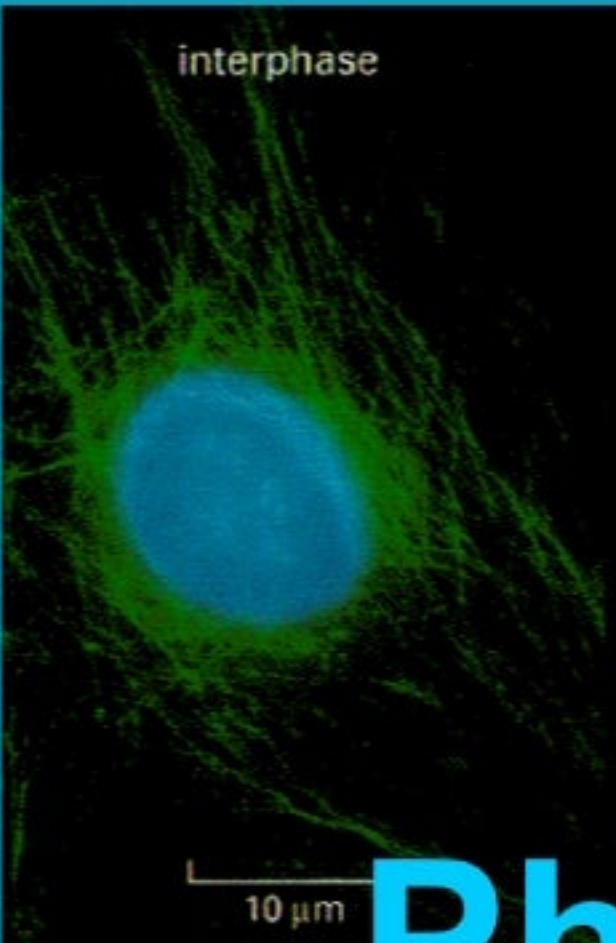
Also known as  
Mitosis

Takes place in  
Regular Body Cells

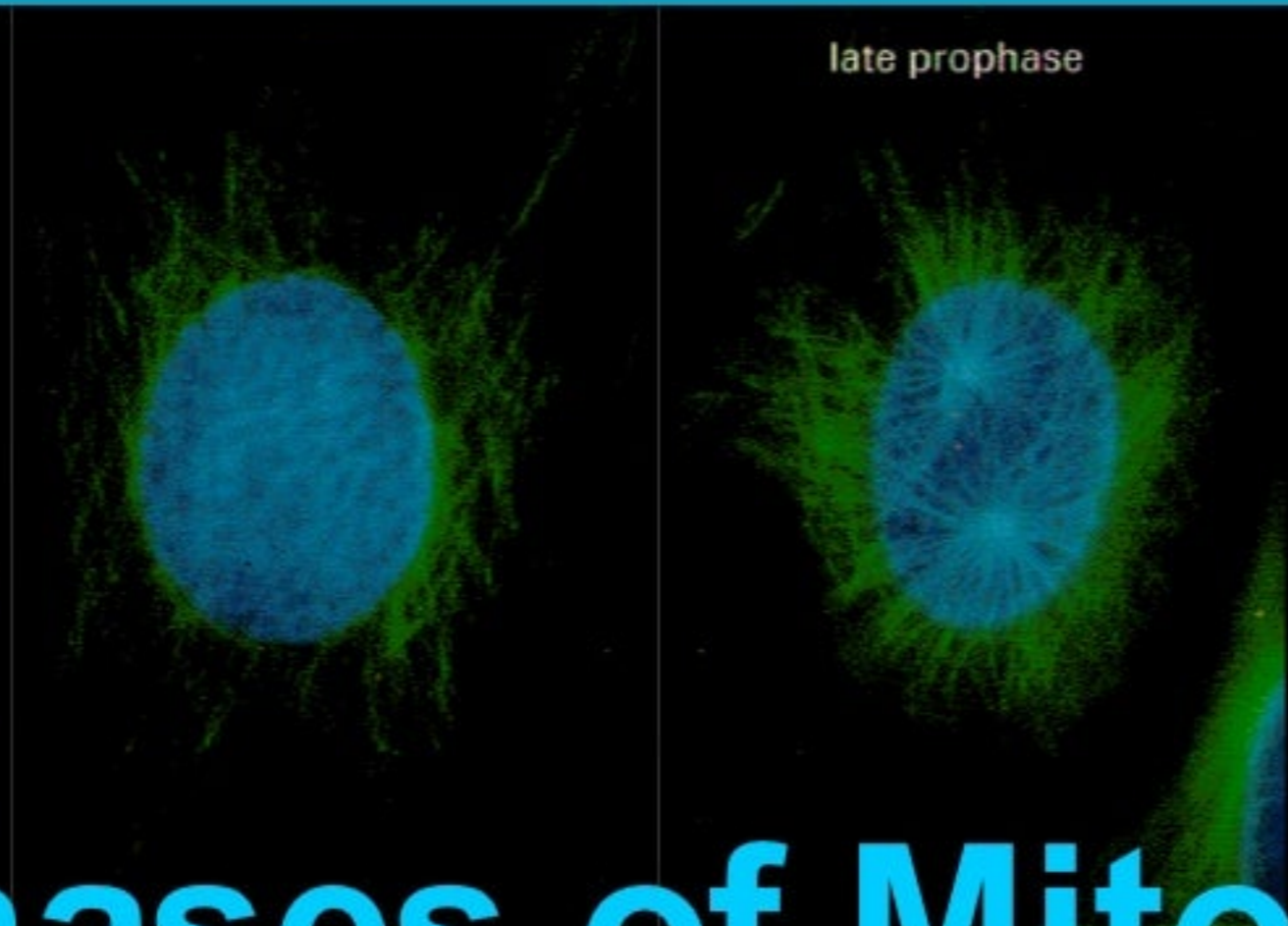
Keeps Cells Living  
and Growing



interphase



late prophase

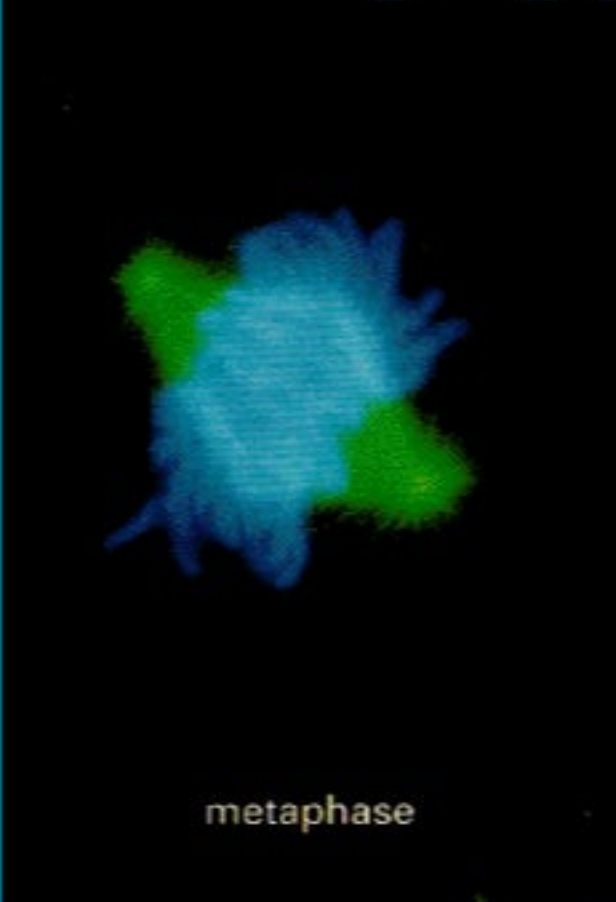


prometaphase

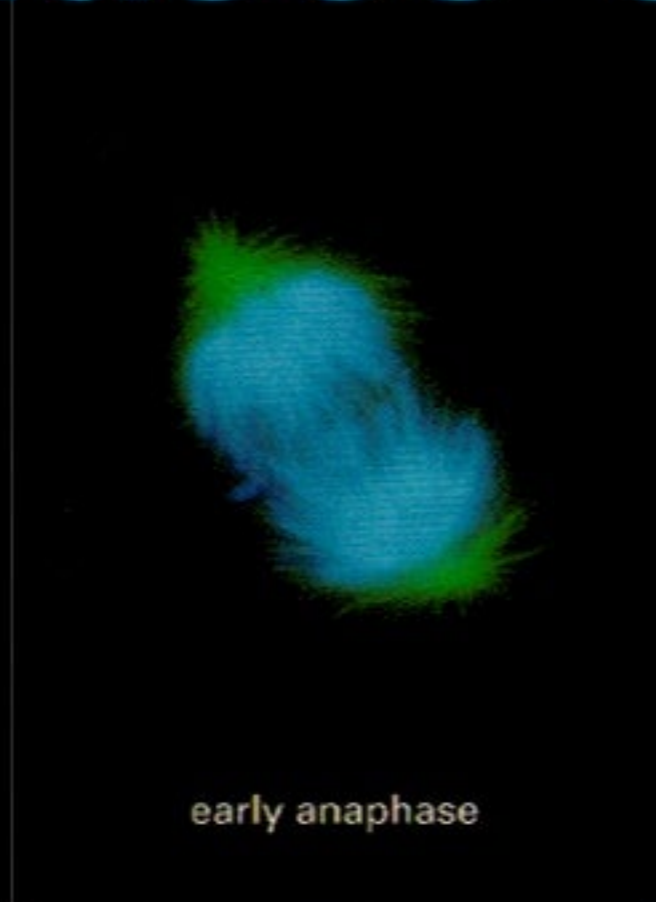


# Phases of Mitosis

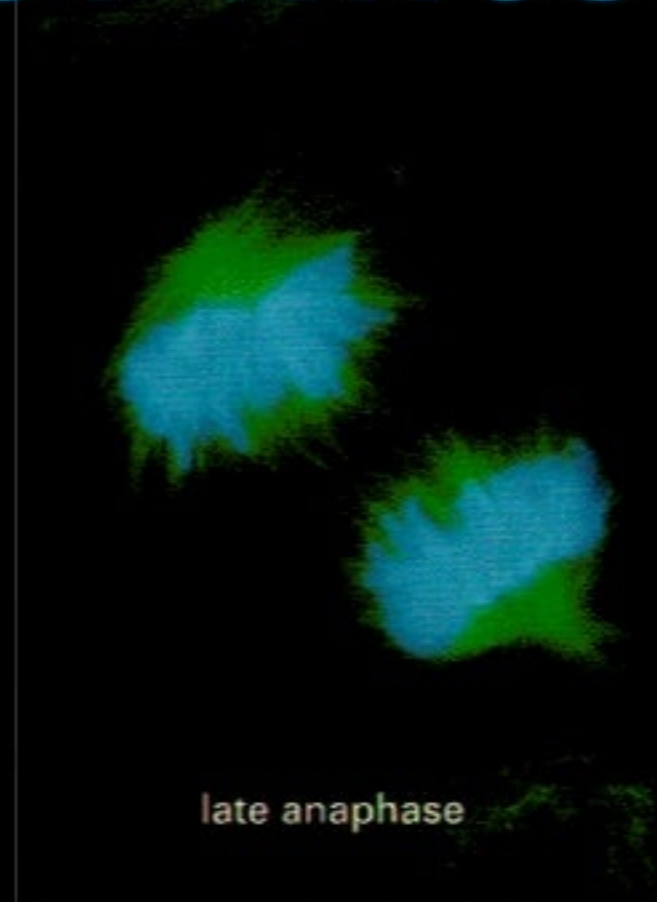
metaphase



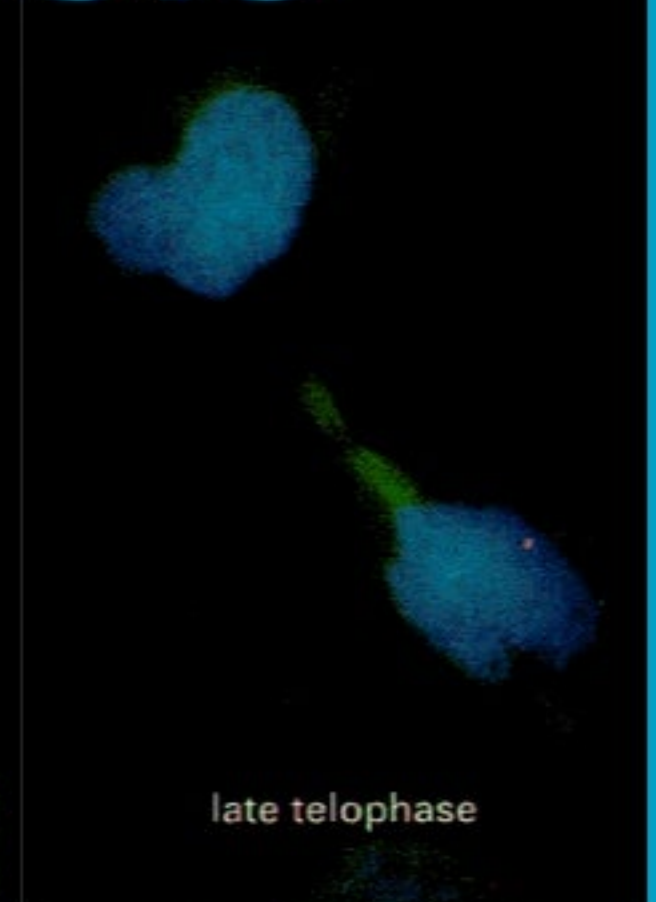
early anaphase



late anaphase



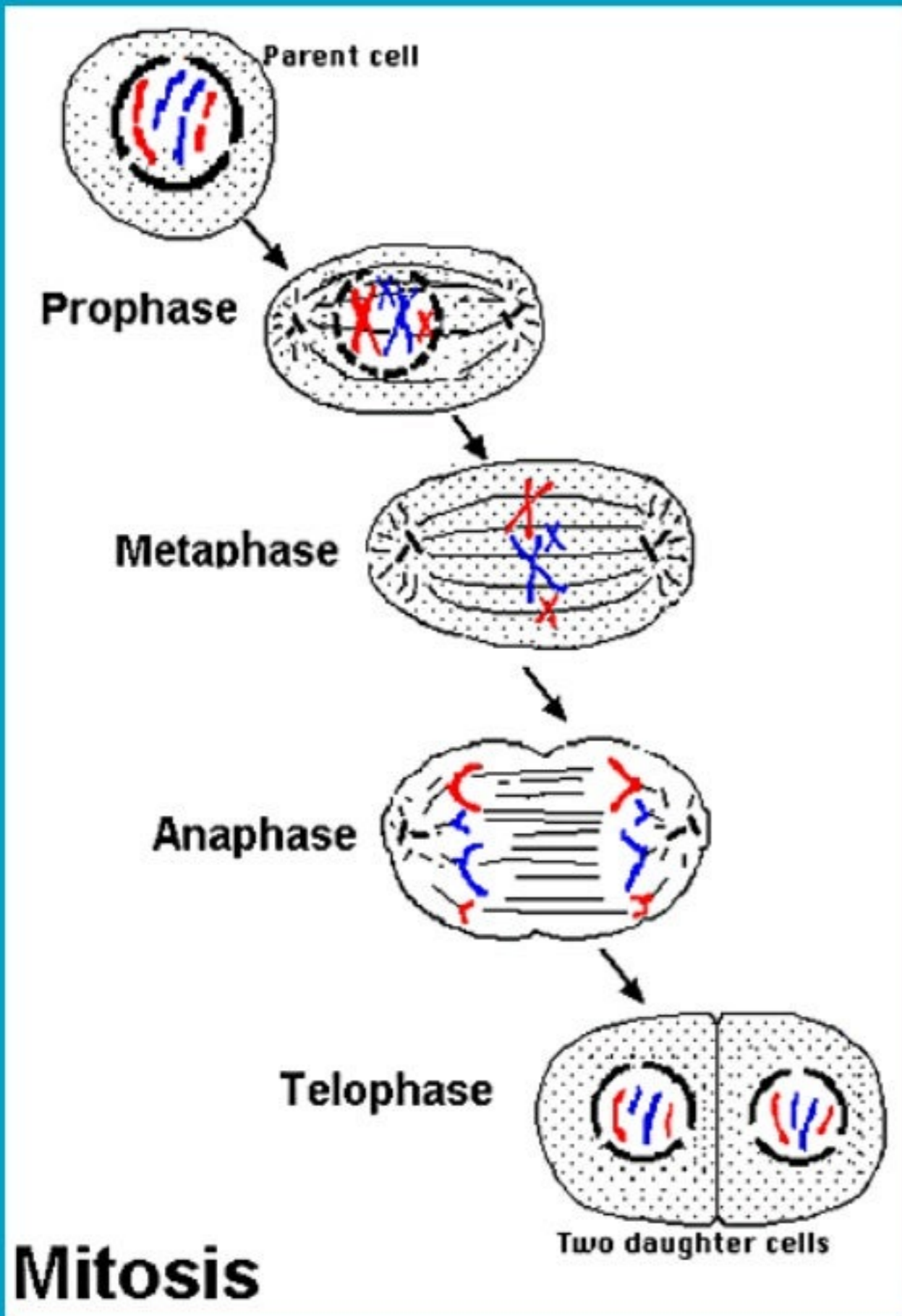
late telophase

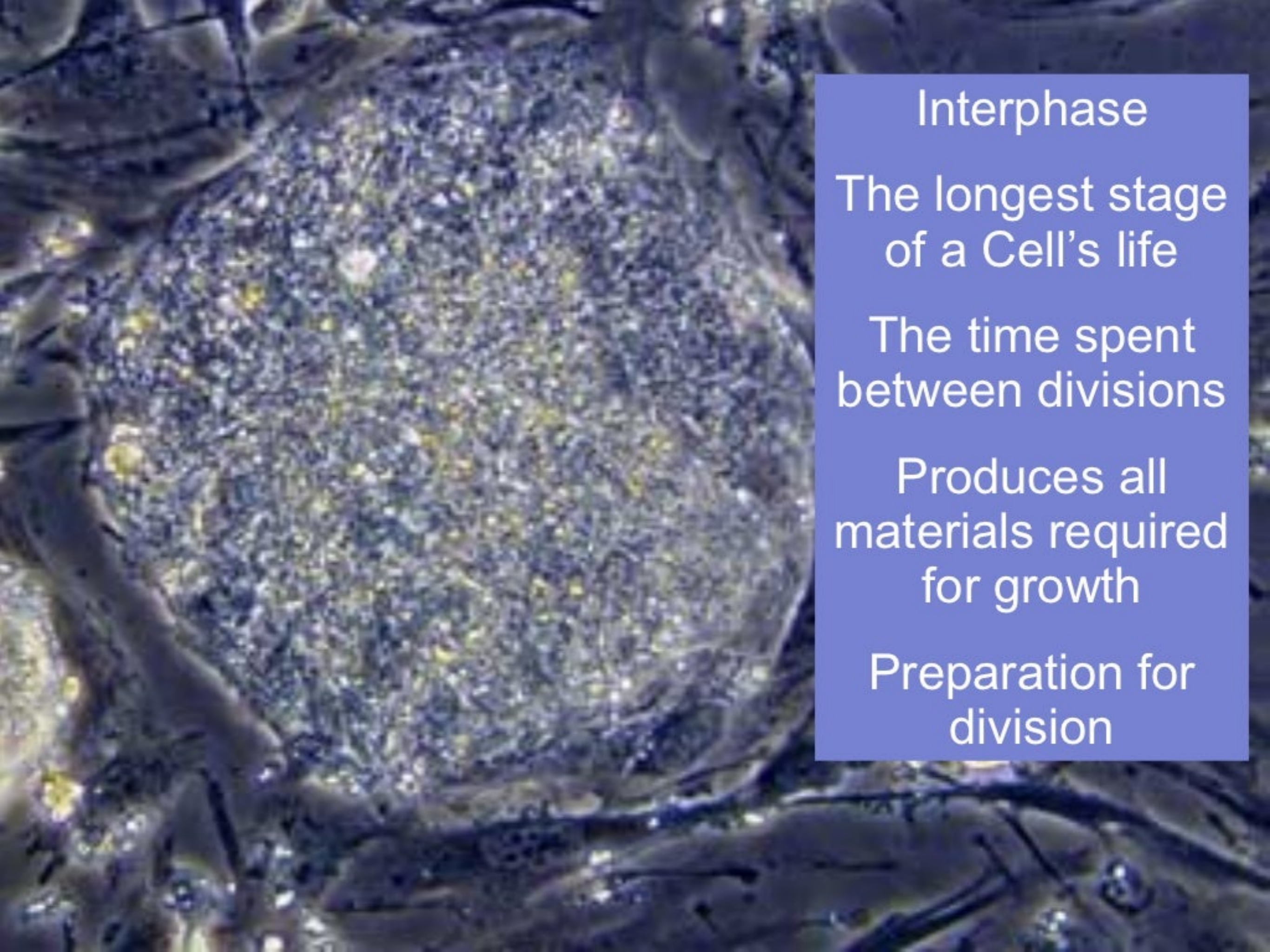


# Mitosis

## The Basic Phases of a Cell's Life:

- Interphase
- Prophase
- Metaphase
- Anaphase
- Telophase
- Cytokinesis





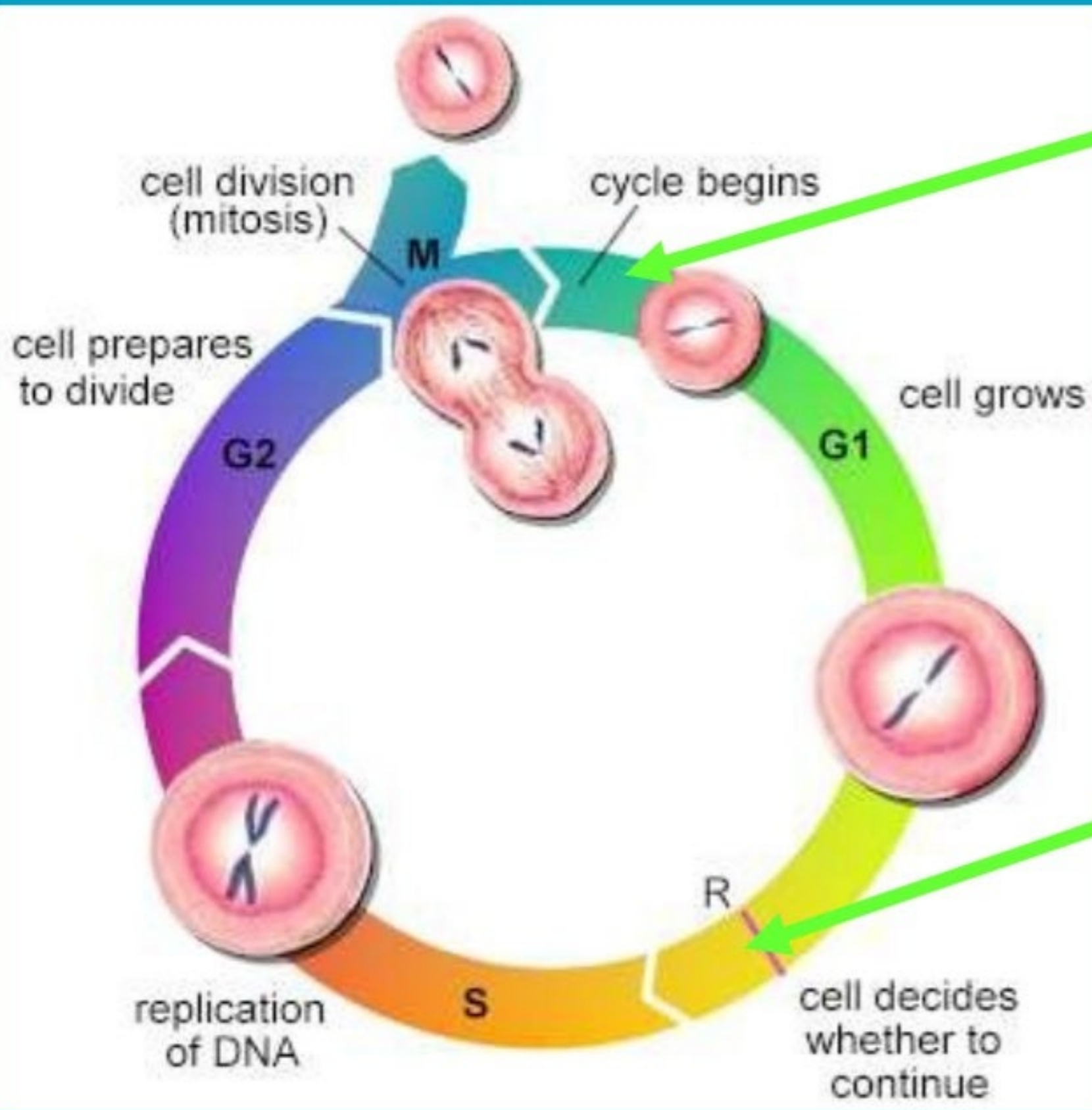
## Interphase

The longest stage  
of a Cell's life

The time spent  
between divisions

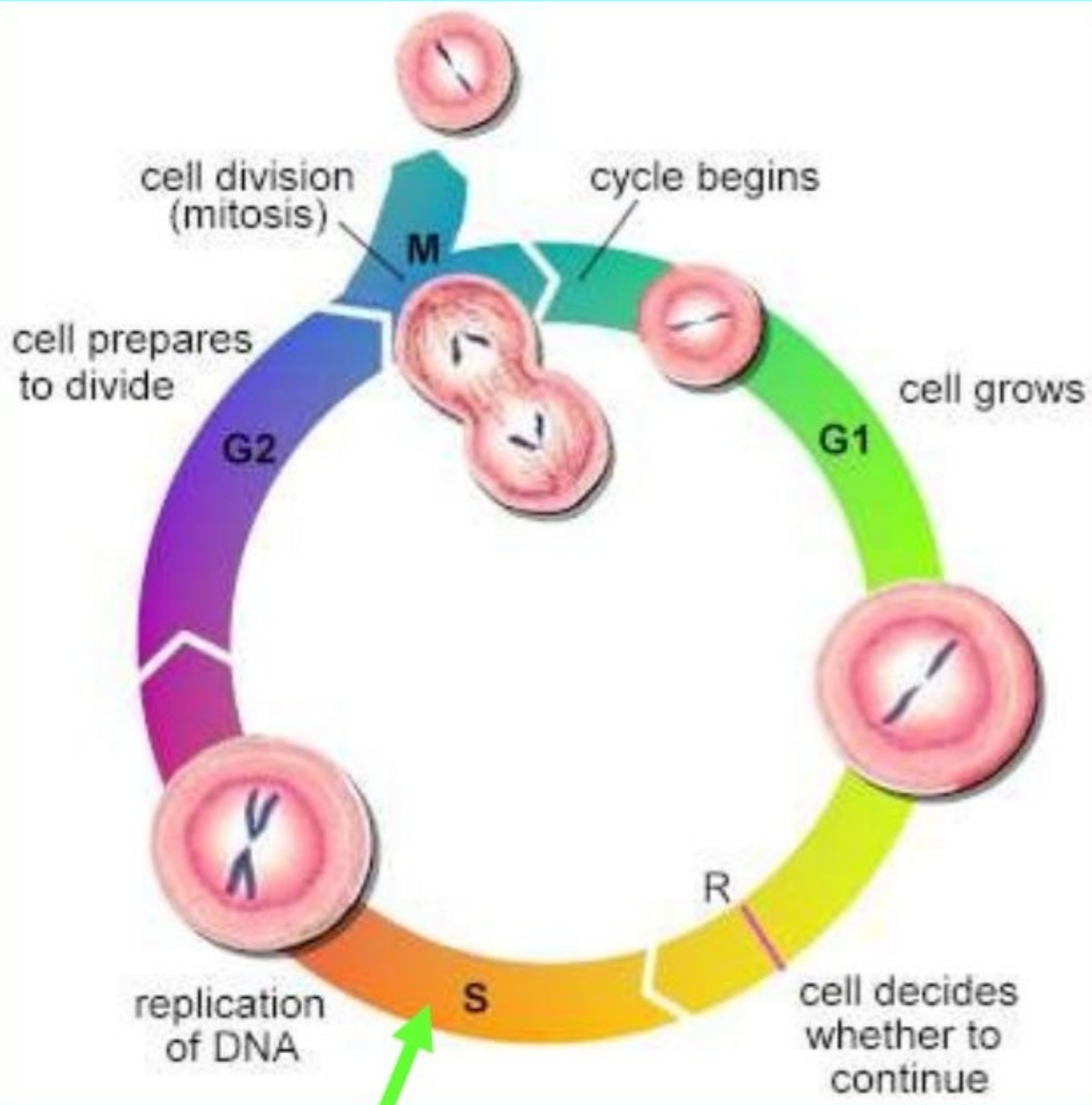
Produces all  
materials required  
for growth

Preparation for  
division



Part of Interphase is also known as the G1 Phase of the Cell Cycle

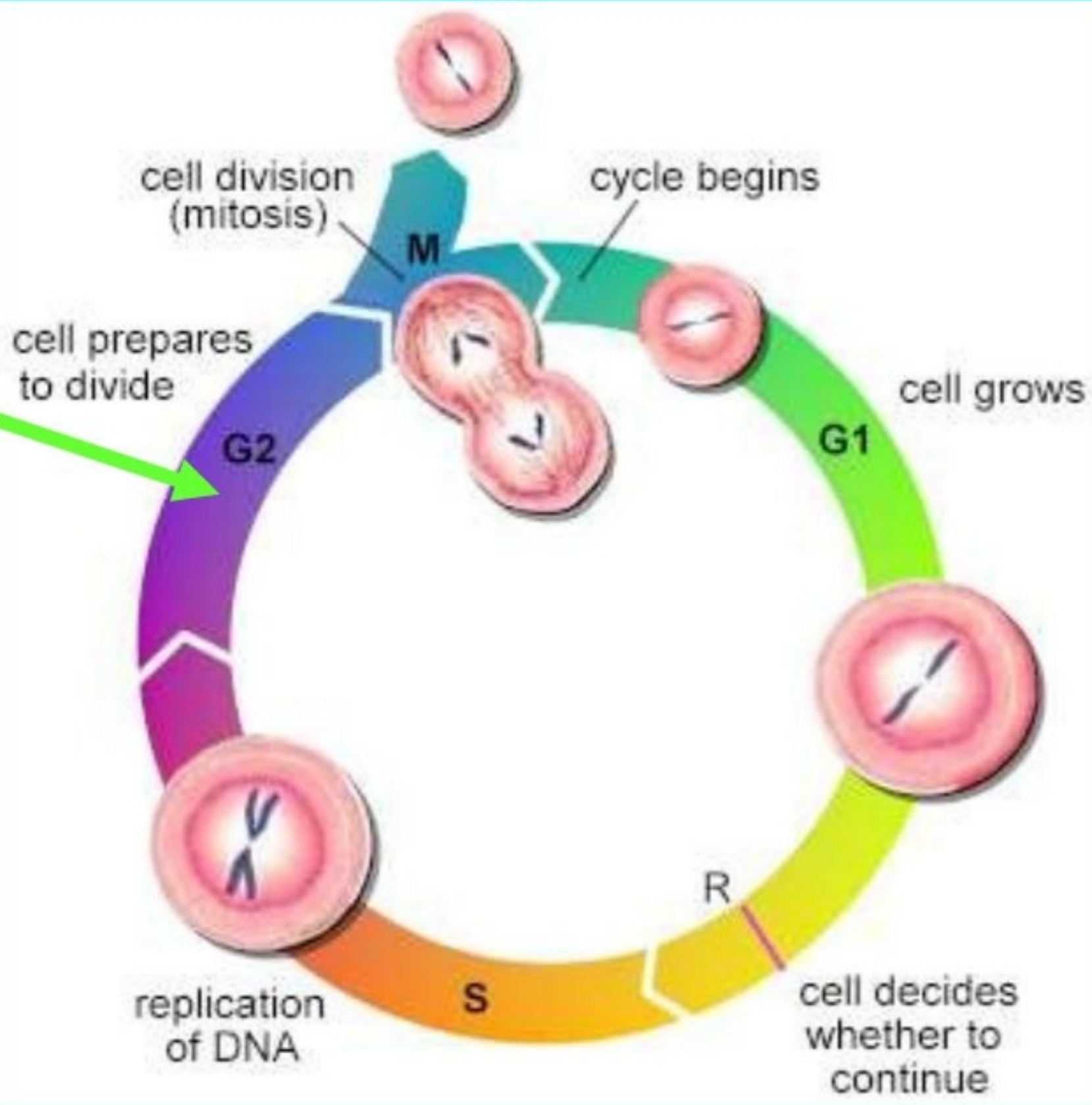
(Growth Phase)



The Second part of Interphase is known as the S Phase of the Cell Cycle

(Synthesis Phase – when DNA duplicates)



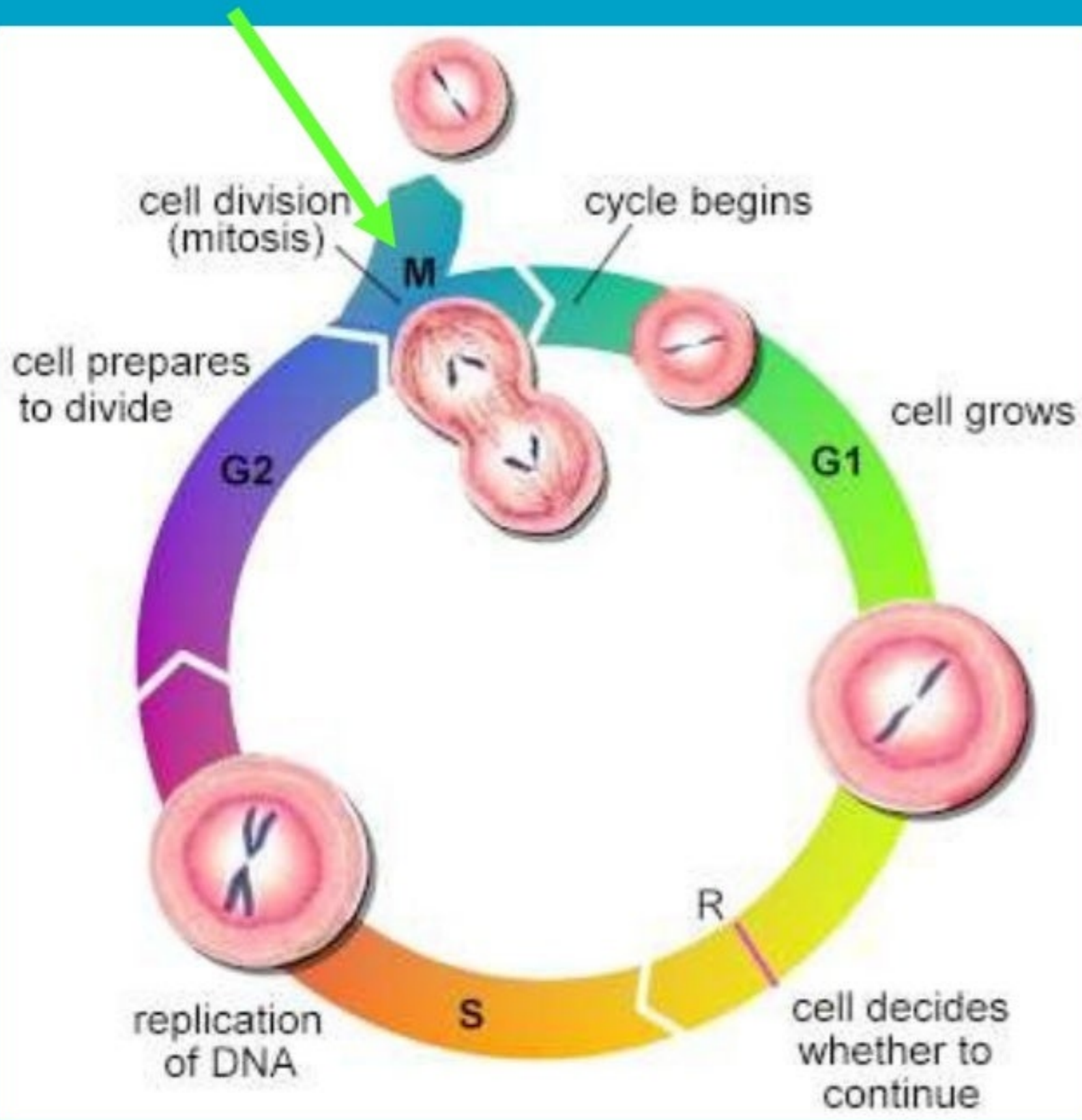


The third part of the Cell Cycle, G2, is just a checkpoint to make sure the DNA is correct.

Next step –

**Mitosis**

# Mitosis: Cell Division



The last part of the Cell Cycle is called Mitosis and has 4 phases during which the cell divides into 2 cells