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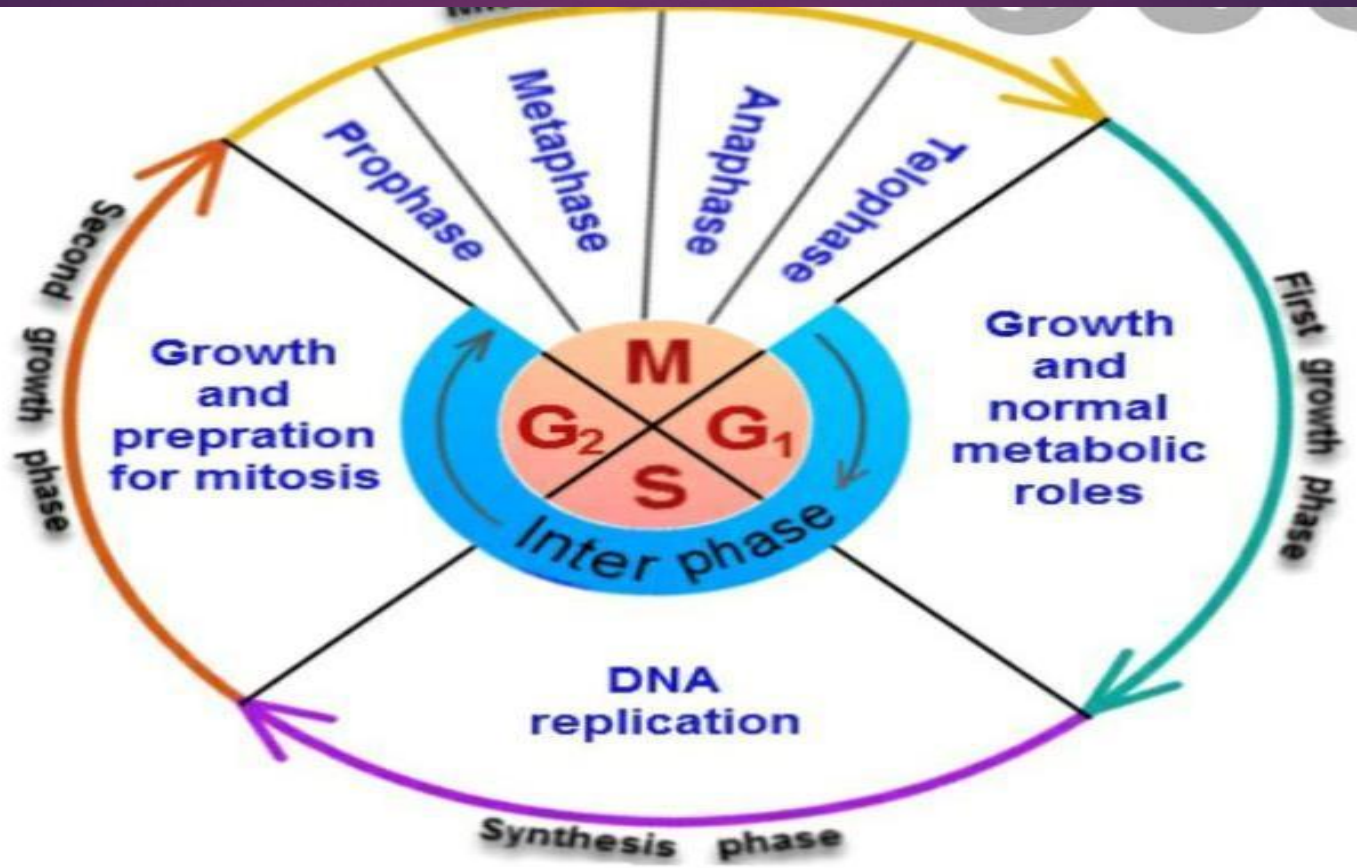
LA-1 201(2)

SUBJECT:BIOLOGY

FACULTY:SVETLANA SMIRNOVA

Cell cycle and cell division



Cell cycle and cell division

The Cell Cycle

- Interphase(90%) of cycle)
- G1phase growth
- S phase synthesis of DNA

(Replication)

- G2 phase preparation for cell division

MITOTIC phase

- Mitosis nuclear division
- Cytokinesis cytoplasm division

Cell cycle and Mitosis

The cell cycle and cell division key concept

*Through the **cell cycle** organisms grow , develop, replace old or damaged cell and produce new cells*

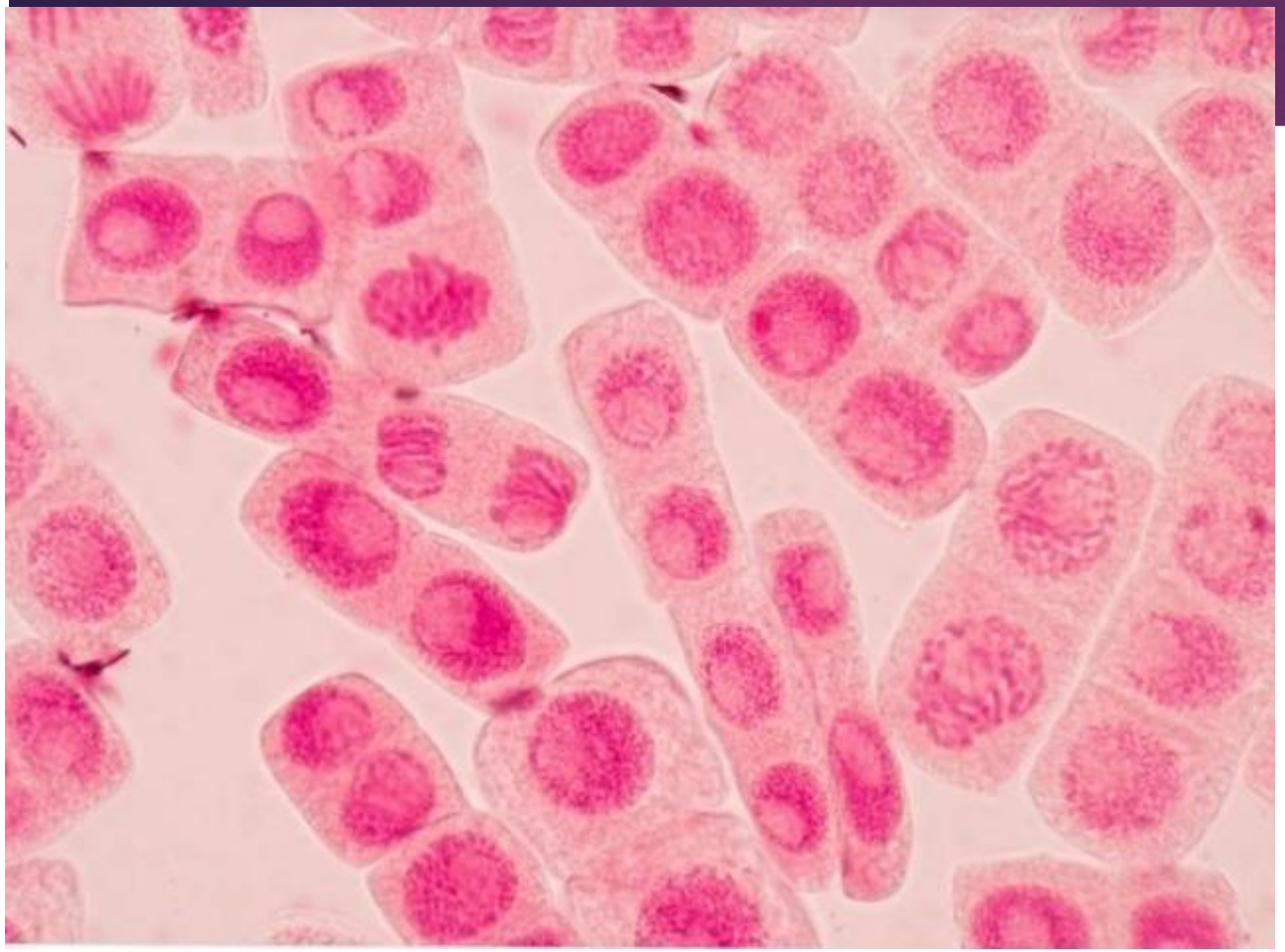
- *Before mitosis begin there inphase known as **interphase***
- ***Interphase** is longest part of cell cycle*
- ***Interphase** gets the cell ready to divide*

What is mitosis

- **Mitosis**: *cell division involving in somatic cells*
- Involves *only diploid* cell
- Form *of asexual reproduction for some life +bacteria, protista, fungai)*
- **End results:** *two genetical identical* ***daughter cells***

Mitosis

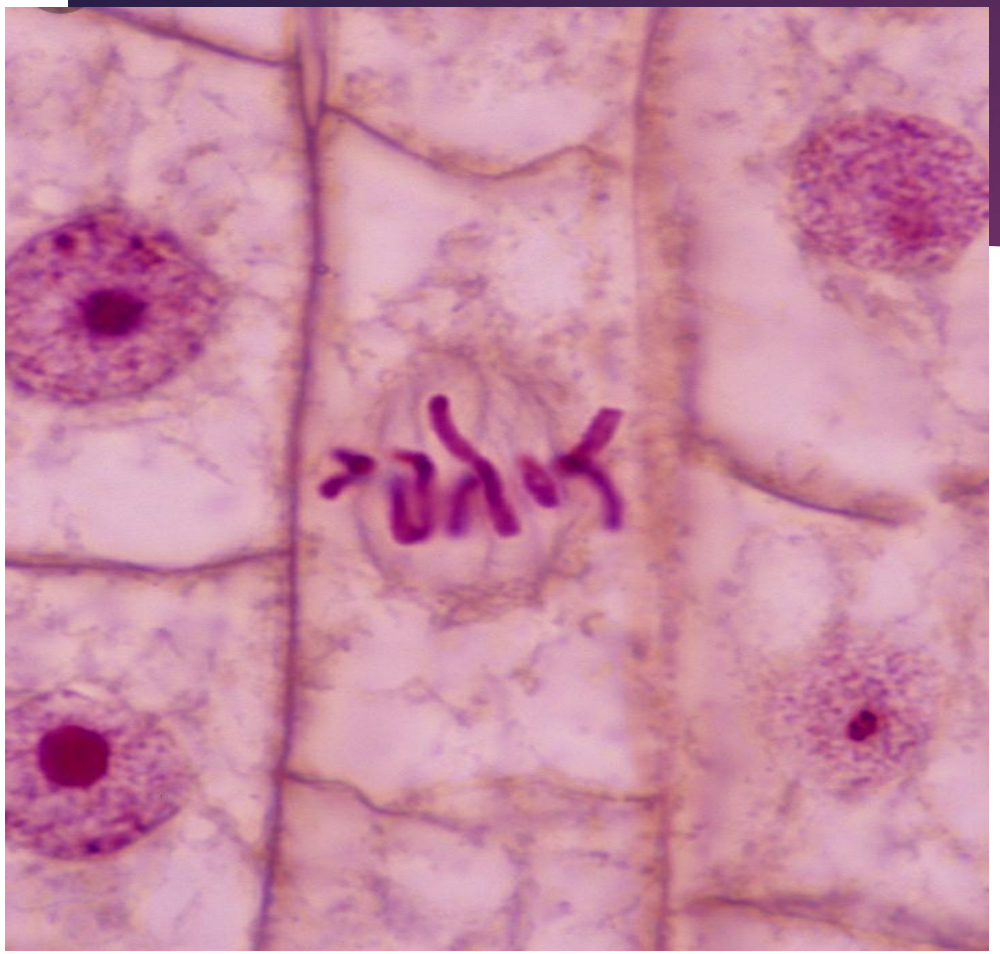
1. Im mitosis we have 4 phases
   Prophase
2. Metaphase
3. Anaphase
4. telophase



Prophase

Prophase

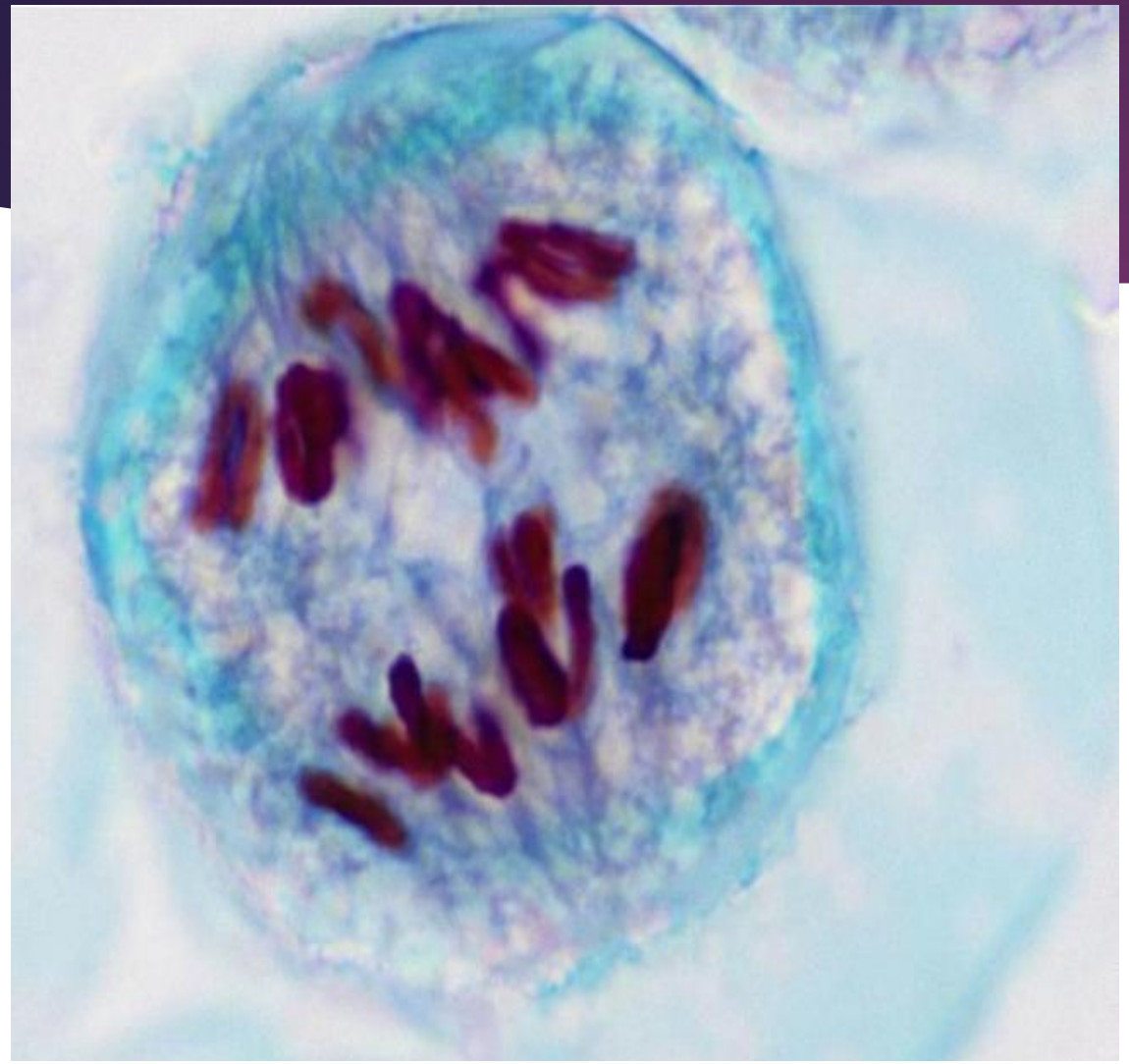
- Nucleus start to disappear
- Chromatin coils become chromosomes
- Centrioles appear and begin to move to opposite end of cells
- Spindle fibers form between the pole



Metaphase

Metaphase

- Second stage of cell division
- Between prophase and anaphase
- Chromosomes become attached to the spindle fibers



Anaphase

Anaphase

- Chromosomes breaks at centromeres and sister chromatids moves to the opposite end of the cell

Telophase

Telophase

- *Final phase of cell division*
- *Between anaphase and interphase*
- *Chromatids or chromosomes move to opposite end of the cell*
- *Two nuclei are formed*

Thank you