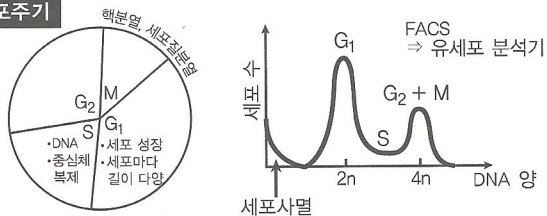
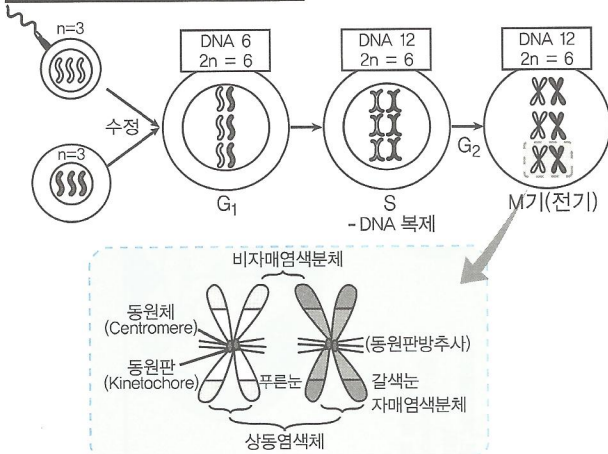


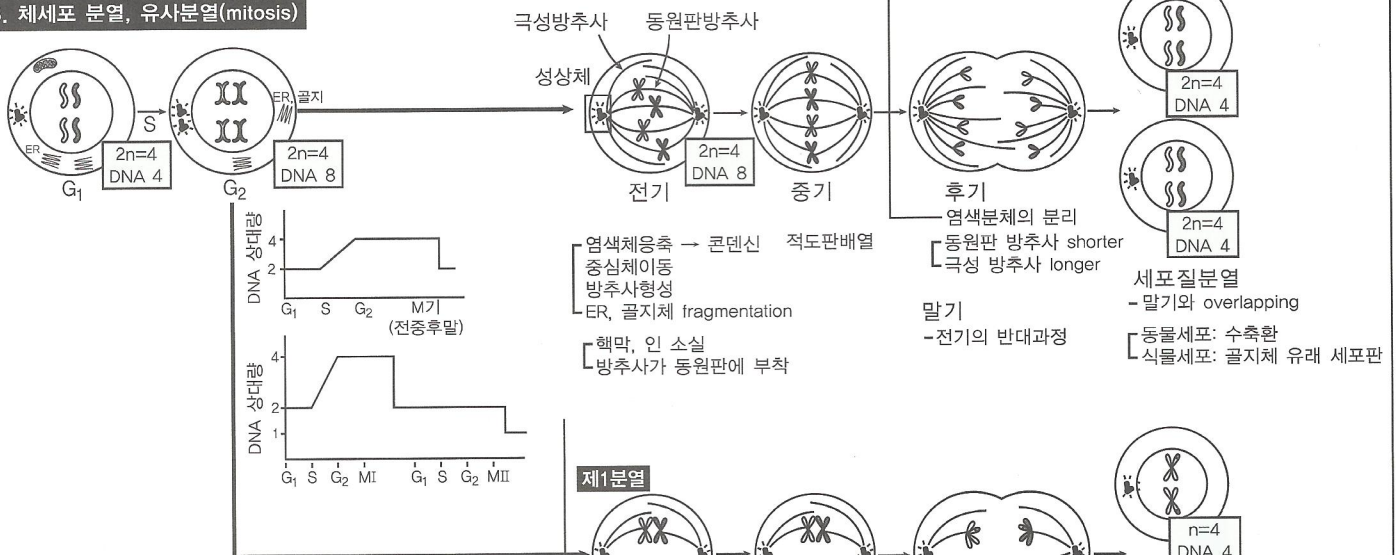
1. 세포주기



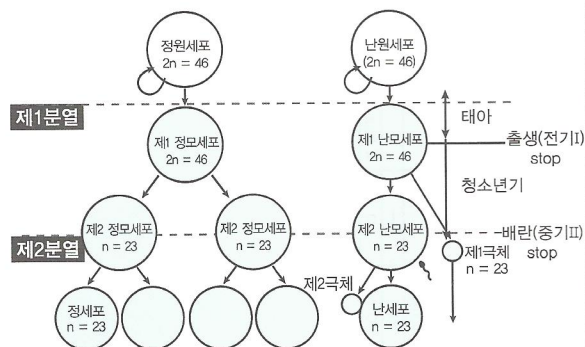
2. 핵상(n, 2n), DNA 함량(상댓값)



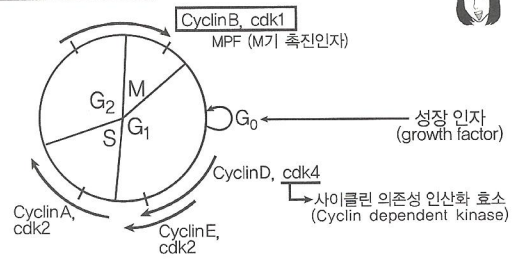
3. 체세포 분열, 유사분열(mitosis)



4. 감수 분열(meiosis)

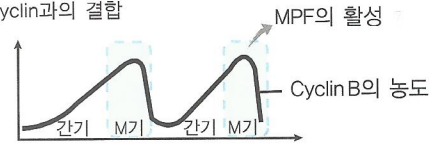


5. 세포주기의 조절



6. CDK의 조절

① Cyclin과의 결합



② CDK inhibitor와의 결합 ex) p21

③ 인산화효소, 탈인산화 효소의 활성 조절 ex)MPF

③ 인산화효소, 탈인산화 효소의 활

The diagram illustrates the cell cycle as a continuous loop. It starts with a single-chromatid chromosome in the G1 phase. During the S phase, DNA replication occurs, resulting in a two-chromatid chromosome. In the G2 phase, the chromosome is further prepared for division. The M phase shows the chromosome undergoing mitosis, where the two sister chromatids separate into two single-chromatid chromosomes. A feedback arrow labeled '휴식기분해' (rest and degradation) points from the end of the M phase back to the beginning of the G1 phase, completing the cycle.

동원판방추사

The diagram illustrates the stages of mitosis in a cell with $2n=4$ chromosomes. It shows four stages: Prophase (condensing chromosomes), Metaphase (chromosomes aligned at the equator), Anaphase (sister chromatids separating), and Telophase/Cytokinesis (nuclei forming and cell dividing). Labels include $2n=4$ and DNA 8 in the initial state, and $2n=4$ and DNA 4 in the final daughter cells.

전기 DNA 손상
중기 응축 → 콘덴신
후기 염색분체의 분리
동원판 방추사 shorter
극상 방추사 longer
세포질분열

인 소실
사가 동원판에 부착

The diagram illustrates the cell cycle in a series of stages:

- Interphase:** A cell with a nucleus containing four chromosomes (two black, two white) and a label $2n=4$ DNA 2.
- Prophase:** The nuclear envelope is breaking down, and chromosomes are condensing.
- Metaphase:** Chromosomes are aligned at the metaphase plate in the center of the cell.
- Anaphase:** Sister chromatids are separating and moving toward opposite poles.
- Telophase and Cytokinesis:** Two new nuclei are forming, and the cell is dividing into two daughter cells. One daughter cell is shown with a label $n=4$ DNA 4.

상동염색체의 분리

II 중기III 후기III 말기III DNA 2

염색분체의 분리