

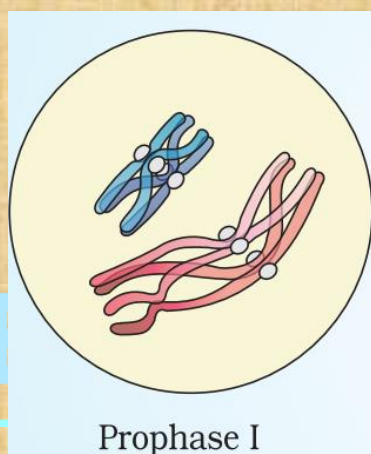
CHAPTER 10

CELL CYCLE AND CELL DIVISION

Structures called chiasmata, meiosis partially get arrested in oocytes of female vertebrates and invertebrates for months to years.

Diakinesis:

Terminalisation of chiasmata occurs and it is transition to metaphase – I, cell organelles disappear in this stage.



Meiosis I:

Actual reduction division, it contains following stages – Prophase I, Metaphase I, Anaphase I, Telophase .

Prophase – I:

Longest phase and it is derived into following sub stages leptotene, Zygotene, Pachytene, Diplotene, Diakinesis.

Leptotene:

Chromosomal condensation occurs.

Zygotene:

Pairing of homologous chromosomes occurs, this pairing is called Synapsis, it occurs with the synaptenemal complex, now these paired

chromosomes can be collectively known as bivalents, these will clearly appear in Pachytene.

Pachytene:

Crossing over occurs between non – sister chromatids of homologous chromosomes and recombination nodules will be formed and recombination occurs with the help of recombinase enzyme.

Diplotene:

Disintegration of synaptenemal complex occurs and homologous chromosomes move away from each other but still remain associated at the place where crossing over occurred and forms x – shaped.

