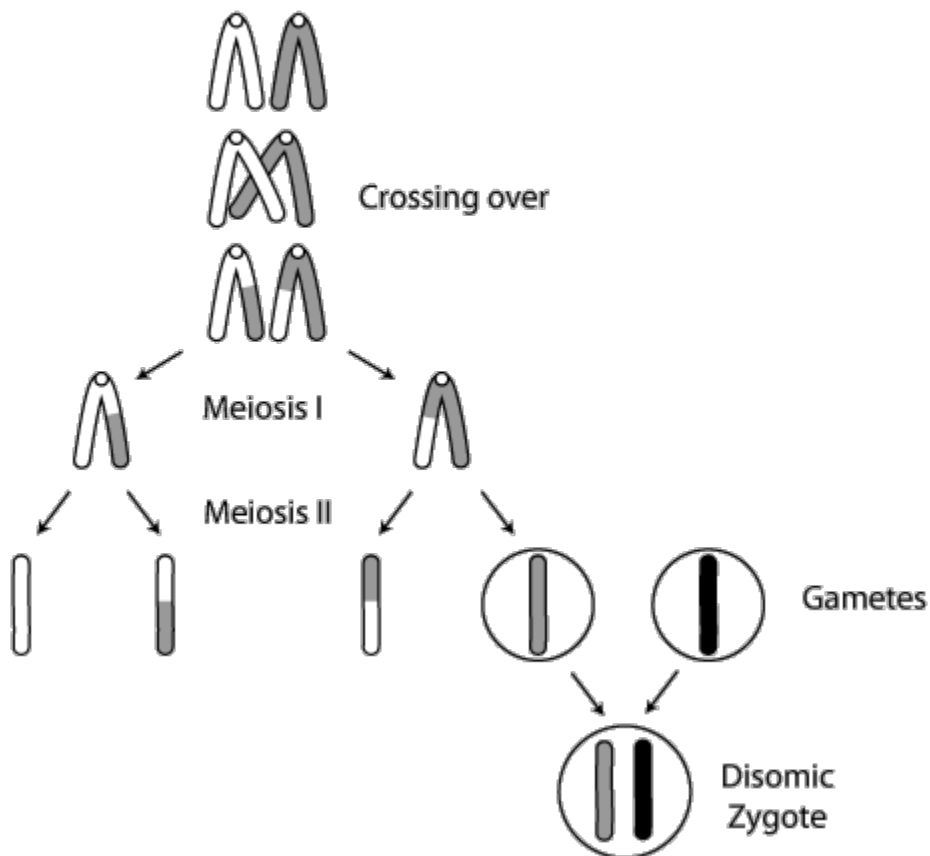


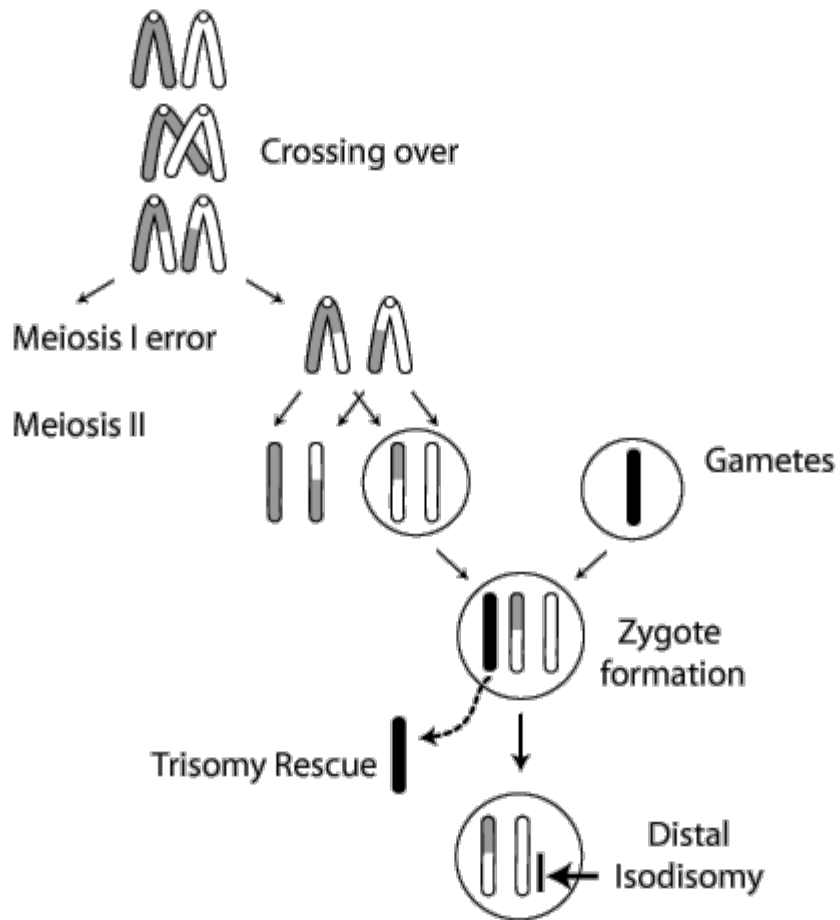
## Hetero and isoparental disomies

The diagrams below illustrate, for a pair of chromosomes, how pairing and subsequent crossing over, followed by a meiotic error with subsequent rescue, can generate uniparental disomy. The UPD chromosomes can have areas of isodisomy in either the centromeric or telomeric regions, depending on whether a meiosis I or a meiosis II defect occurred. These regions of isodisomy may be detectable by microarray SNP analysis.

### Normal Crossing Over and Meiotic Segregation



# Mechanism for Distal Isodisomy/Proximal Heterodisomy



Mechanism for Centromeric Isodisomy/Distal Heterodisomy

