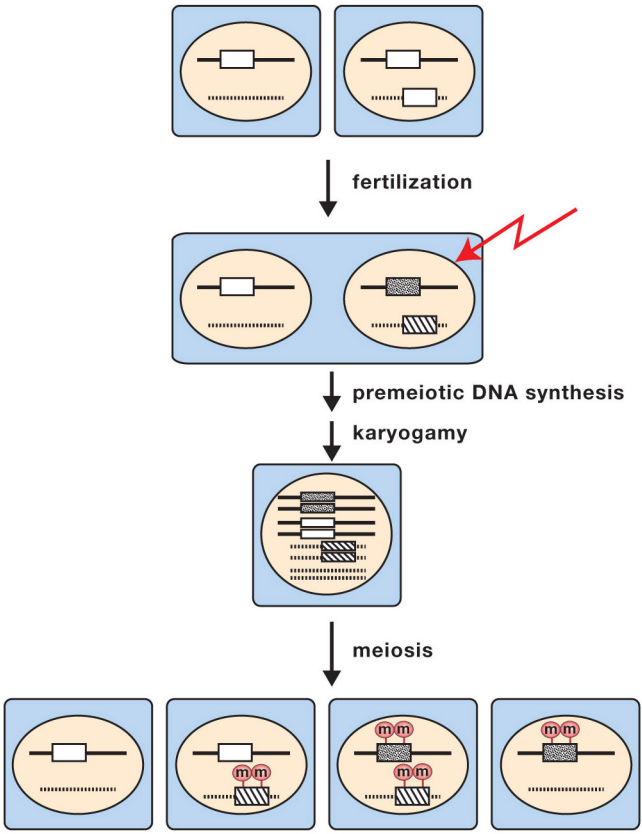

Figure 11. Repeat-induced Point Mutation (RIP)

For clarity, only two chromosomes are illustrated. The open box represents a gene, or any chromosomal segment, which when duplicated (e.g., in the strain indicated on the *top right*) is subject to RIP (symbolized by *lightning bolt*) between fertilization and karyogamy. Results of genetic experiments reveal that duplications can be repeatedly subjected to volleys of C-to-T transitions (symbolized by *filled boxes*) during this period of ~10 mitoses, right up to the final premeiotic DNA synthesis (Selker et al. 1987; Watters et al. 1999). The four possible combinations of chromosomes in progeny are indicated, and the red "m" represents DNA methylation, which is frequently (although not always) associated with products of RIP.