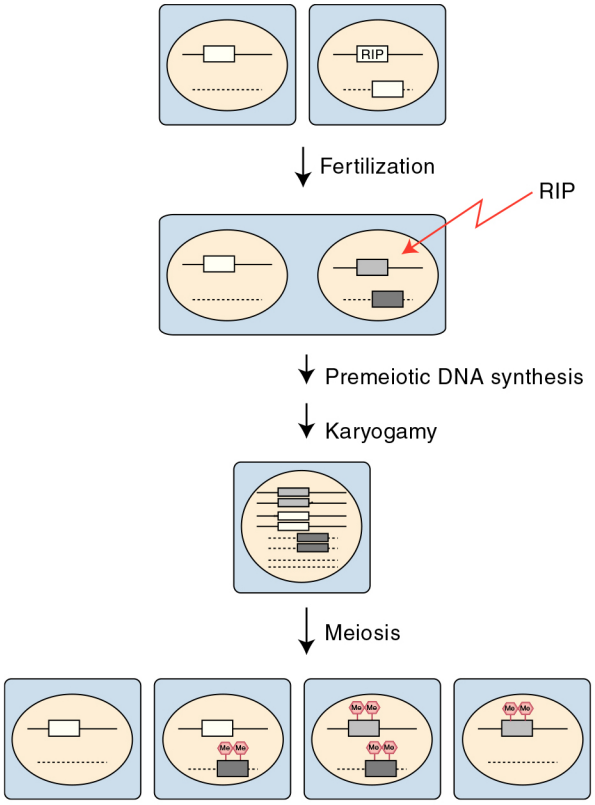

Figure 3. Repeat-induced point mutation (RIP). For clarity, only two chromosomes are illustrated. The open box represents a gene or chromosomal segment that was duplicated in one strain (*top*, *right*). Duplications are subject to RIP (symbolized by lightning bolt) between fertilization and karyogamy. Results of genetic experiments revealed that duplications can be repeatedly subjected to volleys of C to T transitions (symbolized by filled boxes) during this period of approximately 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. Pink "Me" represents DNA methylation, which is frequently (although not always) associated with products of RIP.