



▲ **FIGURE 12-7 Model of initiation of replication at *E. coli* *oriC*.** The 9-mers and 13-mers are the repetitive sequences shown in Figure 12-5. Multiple copies of DnaA protein bind to the 9-mers at the origin and then “melt” (separate the strands of the 13-mer segments). The sole function of DnaC is to deliver DnaB, which is composed of six identical subunits, to the

template. One DnaB hexamer clamps around each single strand of DNA at *oriC*, forming the prepriming complex. DnaB is a helicase, and the two molecules then proceed to unwind the DNA in opposite directions away from the origin. [Adapted from C. Bramhill and A. Kornberg, 1988, *Cell* **52**:743, and S. West, 1996, *Cell* **86**:177.]