



Figure 9. Model for the targeting of the MSL complex to the X chromosome. The dosage compensation complex in *Drosophila* is proposed to implement at least three targeting principles: (i) interaction with the sites of noncoding roX RNA synthesis, (ii) chromatin context–dependent binding to degenerate DNA sequences of varying affinities, and (iii) DNA sequence–independent movement from initiation sites to chromatin marks signaling gene expression (reviewed in Gelbart and Kuroda 2009). This movement has been characterized as “spreading” based on its apparent restriction in *cis* to the chromosome of origin, but the underlying molecular mechanism remains to be understood.