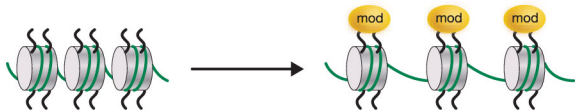


Model 1: Chromatin structural change



Model 2: Inhibit binding of negative-acting factor



Model 3: Recruit positive-acting factor

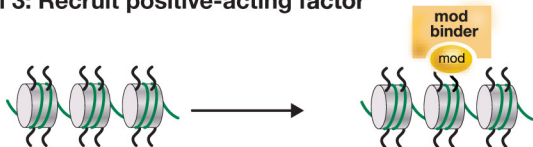


Figure 1. Models Showing How Histone Posttranslational Modifications Affect the Chromatin Template

Model 1 proposes that changes to chromatin structure are mediated by the *cis* effects of covalent histone modifications, such as histone acetylation or phosphorylation. Model 2 illustrates the inhibitory effect of an HPTM for the binding of a chromatin-associated factor (CF), as exemplified by H3S10 phosphorylation occluding HP1 binding at methylated H3K9. In Model 3, an HPTM may provide binding specificity for a chromatin-associated factor. A classic example is HP1 binding through its chromodomain to methylated H3K9.