



**Figure 11.** Coupling of transcriptional initiation to elongation. The key biochemical events that control the transition from transcriptional initiation to elongation are shown. The arrows shown to the right illustrate the combinatorial nature of forces acting on the RNA polymerase II (Pol II) at various phases of RNA expression. SIFT, signal induced transcription factor; GTF, general transcription factors; P-S5, phosphorylation of serine 5 in the carboxy-terminal domain (CTD) of Pol II; NELF, negative elongation factor; DSIF, DRB sensitivity-inducing factor; P-TEFb, positive transcription-elongation factor-b; BRD4, bromodomain-containing protein 4; HEXIM, hexamethylene bis-acetamide inducible 1; P-S2, phosphorylation of serine 2 in the CTD of Pol II.