



Article of Significant Interest in This Issue

The Phosphorylated Estrogen Receptor α Cistrome Defines Unique Genomic Interactions

Many transcription factors have had their genome-wide binding profiles interrogated, but the effects of posttranslational modifications on these cistromes have not been well defined. Estrogen receptor α (ER) is phosphorylated at serine 118 (pS118-ER) in response to numerous stimuli that affect ER function. Helzer et al. ([e00417-18](#)) reveal that genomic sites occupied by pS118-ER exhibit unique characteristics compared to those occupied by unmodified ER, including stronger associations with direct binding sites, active enhancers, and the transcription factor grainyhead-like 2 (GRHL2). These findings demonstrate that phosphorylation impacts the distribution and function of ER-DNA interactions across the genome and suggest that posttranslational modifications may similarly specify genomic interactions of other transcription factors.