

So here's the gene being transcribed, and next to it you see acetylated histones, nice open chromatin. And now you catch these little methyl cytosines. Methyl groups are appearing, and here comes the protein, it binds and will attract this protein complex along with the enzymes that acetylases and now the acetyl groups are gone, and histones become tight, chromatin closes, no transcription factors can come through and the gene is silent.