FIGURE 24.12. The SOS response in *Escherichia coli* works via the negative regulation of genes by the LexA protein. LexA binds to an upstream region (known as an SOS box) of a suite of genes known as *Din* genes (for DNA *d*amage *in*ducible, because one of the main ways to activate the SOS response is through DNA damage). When cells encounter an activating signal such as DNA damage (in this case, due to UV radiation), the LexA protein cleaves itself (with the assistance of the RecA protein). This causes derepression (i.e., activation) of all of the genes with SOS boxes.