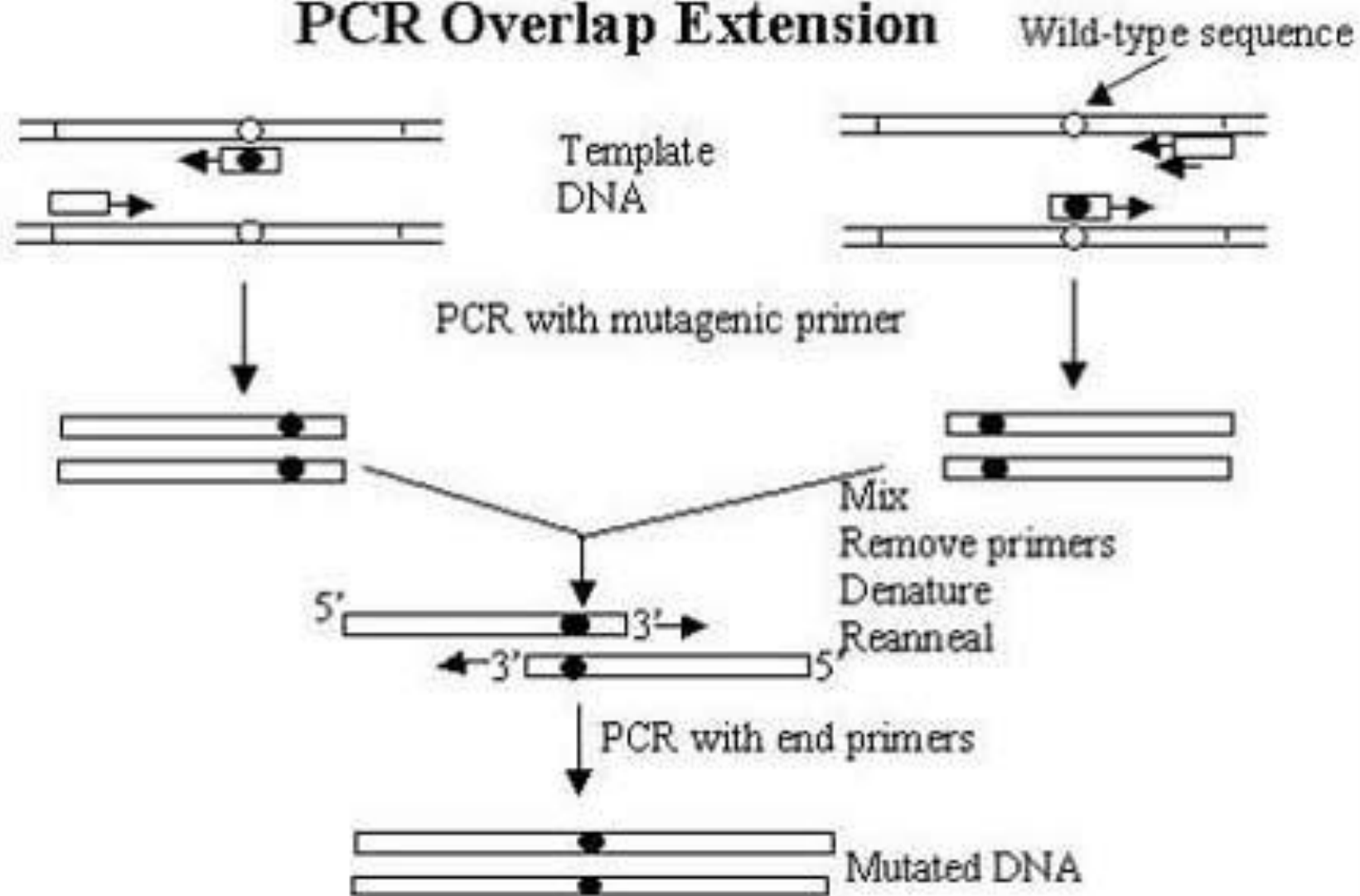


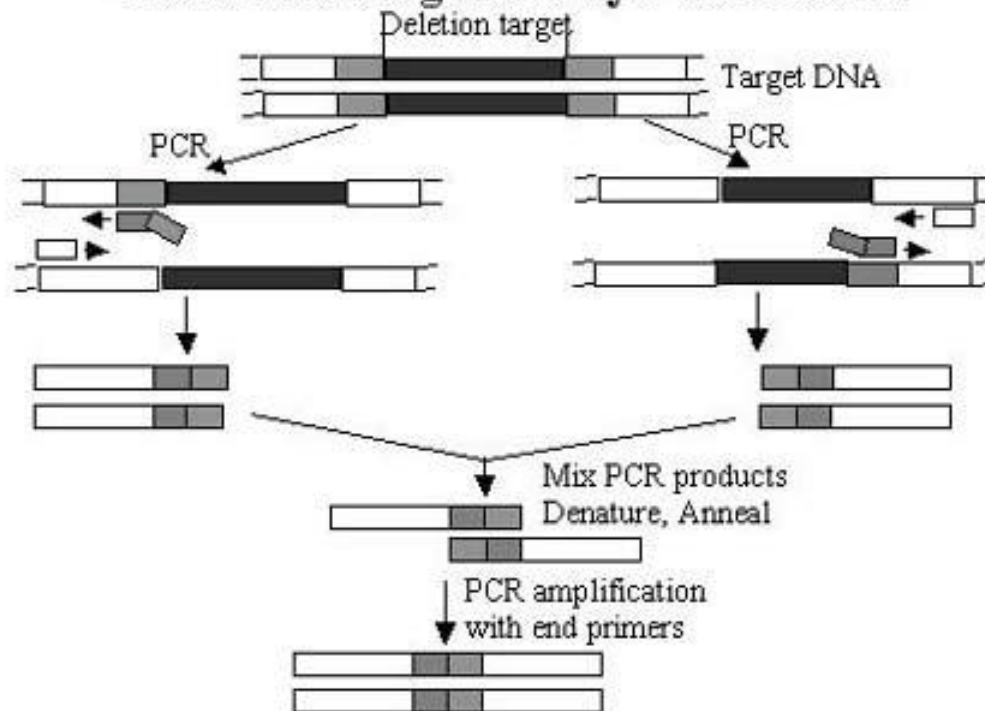
*Recombinant DNA
Technology*

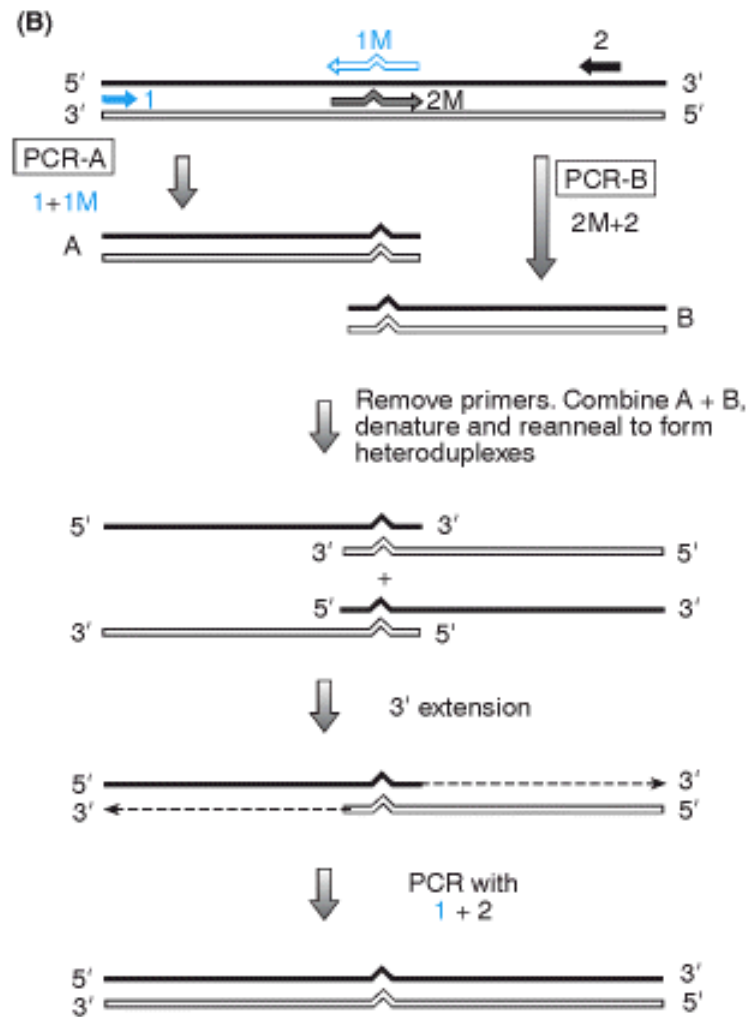
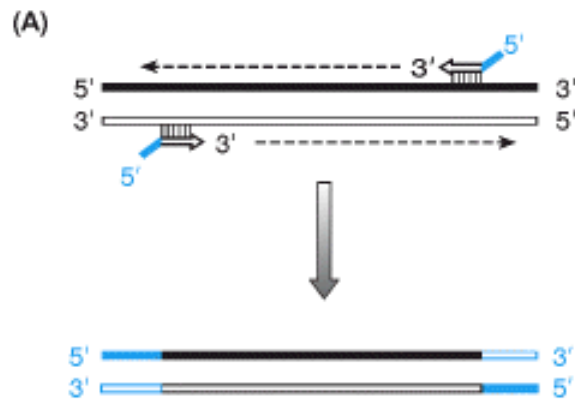
In Vitro Mutagenesis

Base Substitution Mutagenesis by PCR Overlap Extension



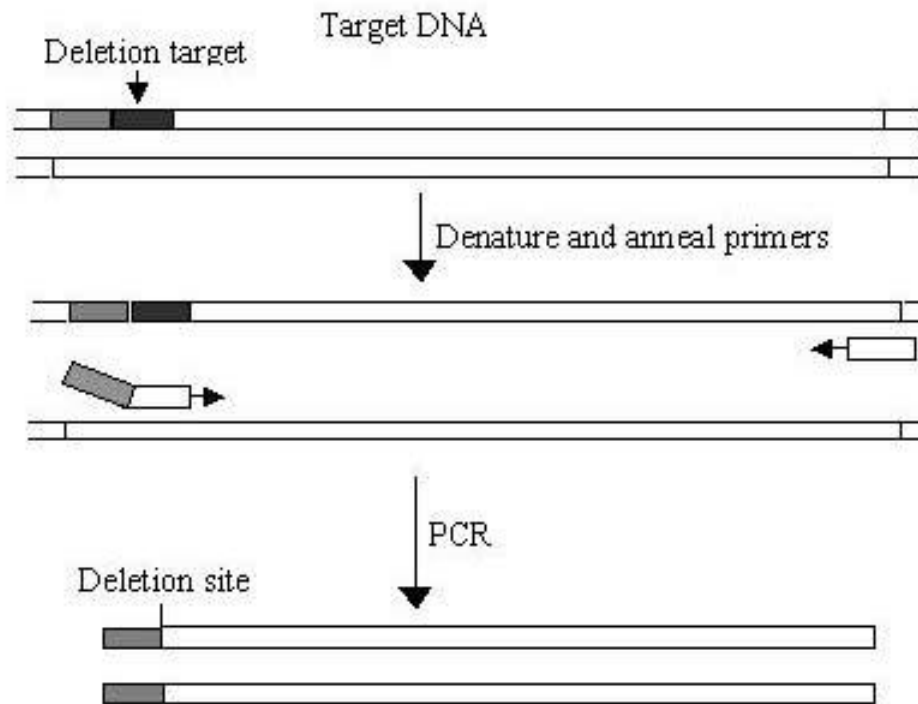
Deletion Mutagenesis by PCR-Fusion





PCR mutagenesis. (A) 5' add-on mutagenesis. Primers can be modified at the 5' end to introduce, for example, a labeled group, a sequence containing a suitable restriction site or a phage promoter to drive gene

Deletion Mutagenesis Using Mismatched Primers

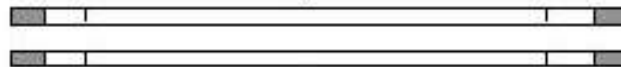


Deletion Mutagenesis by Inverted PCR

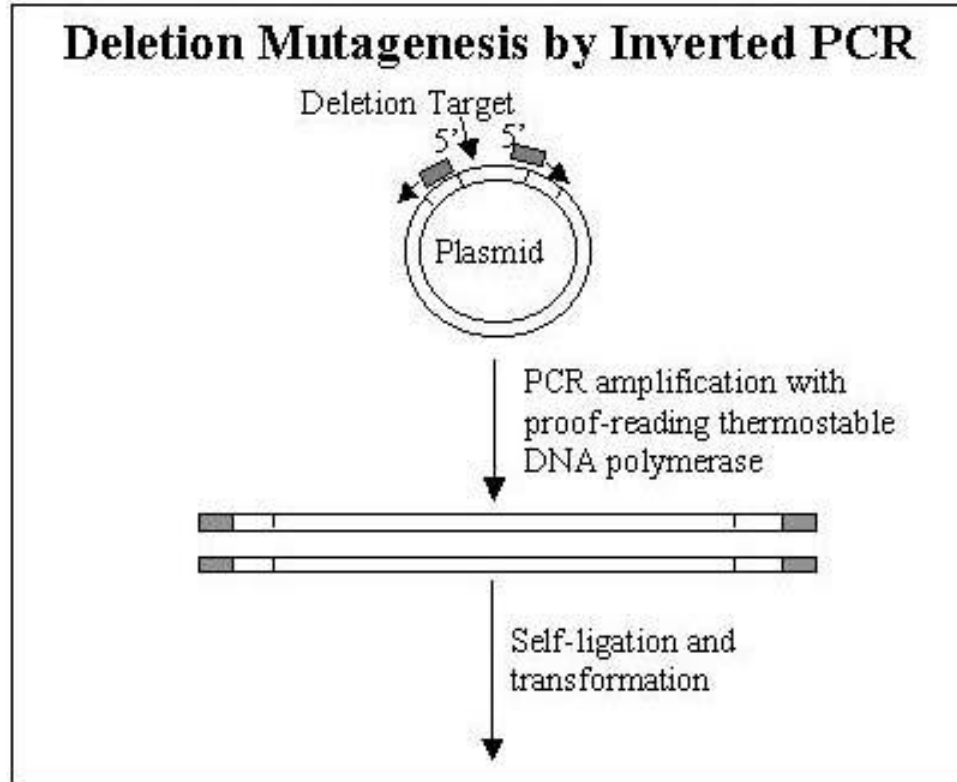
Deletion Target



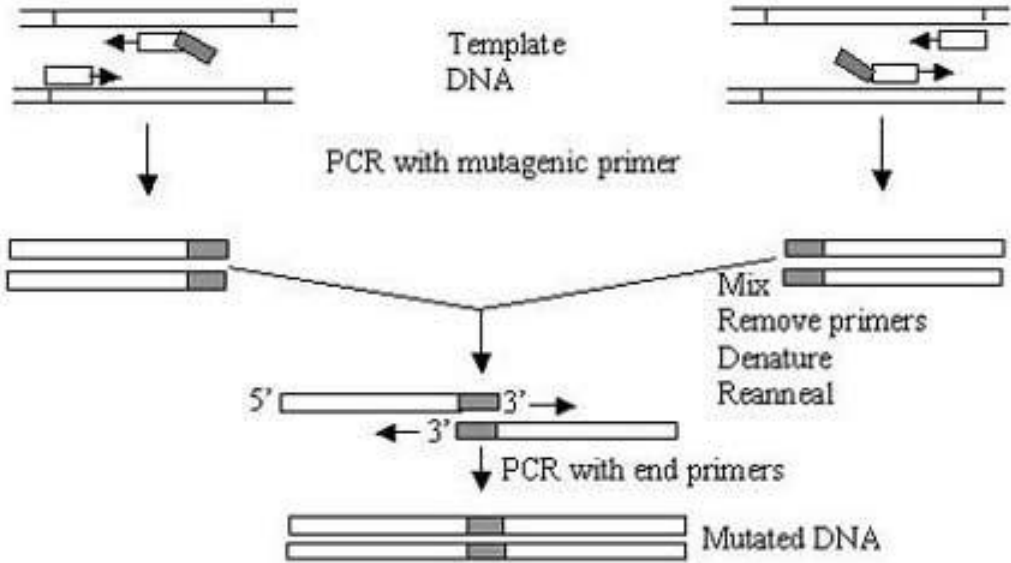
PCR amplification with
proof-reading thermostable
DNA polymerase



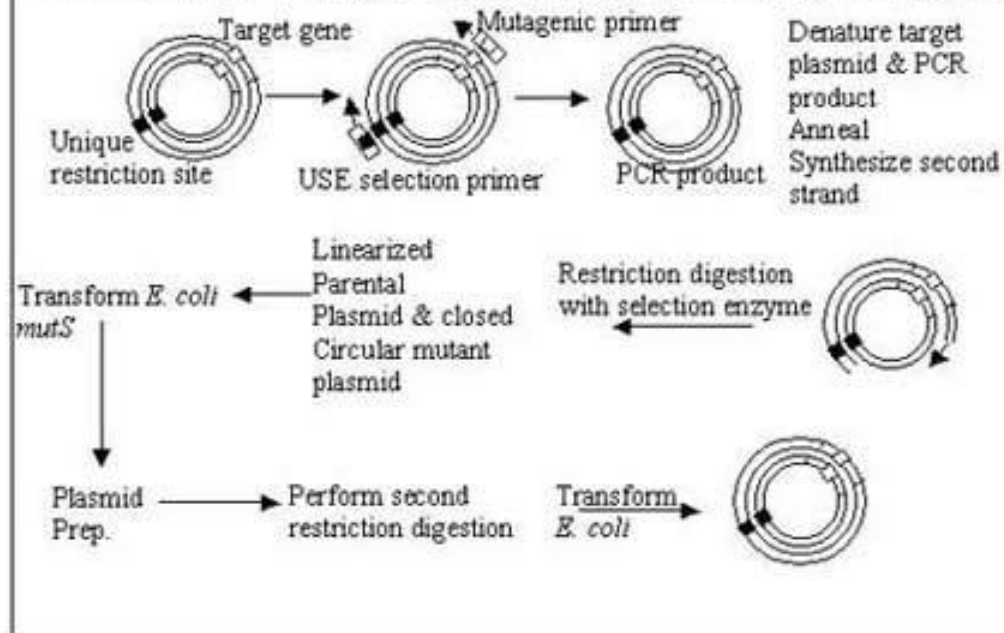
Self-ligation and
transformation



Insertion Mutagenesis by PCR Overlap Extension



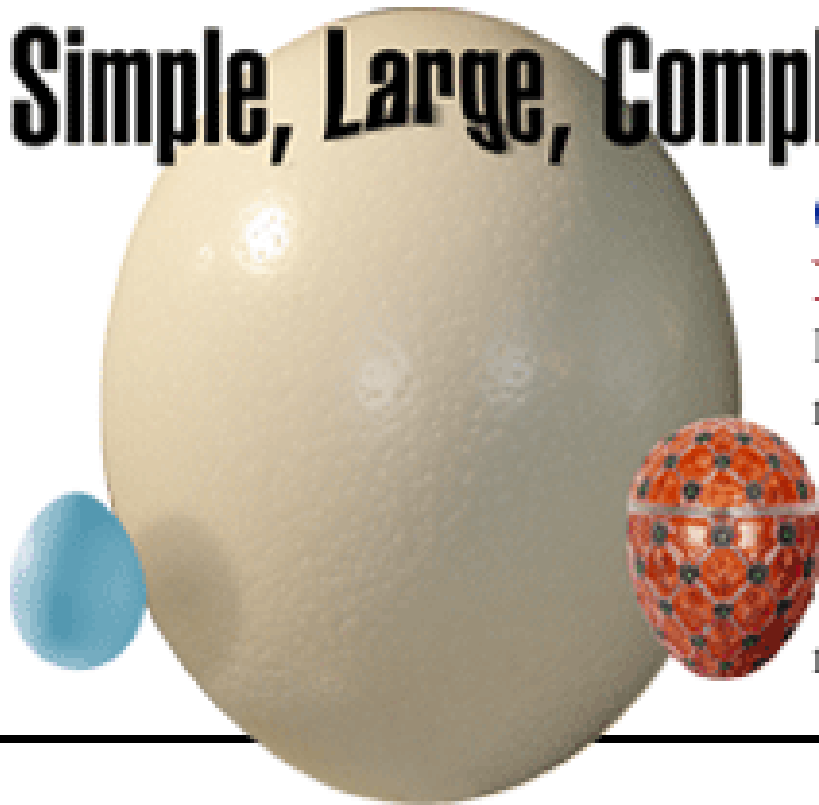
PCR-Based USE (Unique Site Elimination) Mutagenesis



Simple, Large, Complex.

QuikChange[®]
Mutagenesis Product Family

For simple, large or complex mutations, QuikChange[®] kits help you achieve results rapidly and efficiently without causing secondary mutations.



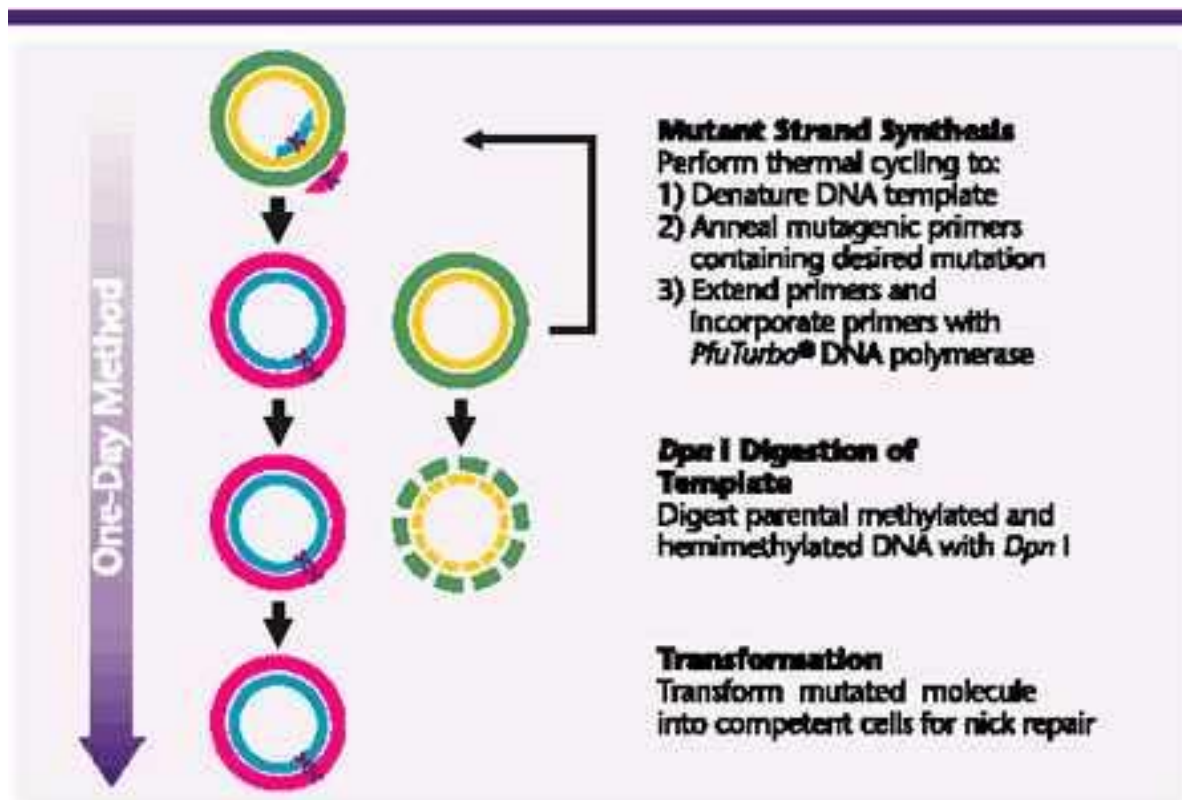


Figure 1

QuikChange™ and QuikChange™ XL Kit Method