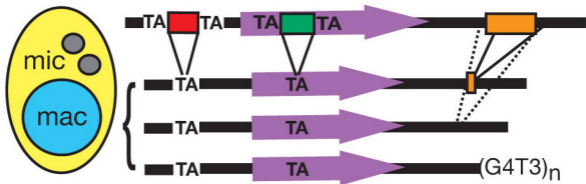


Paramecium: precise and imprecise deletions



Tetrahymena: imprecise deletions and chromosome fragmentation

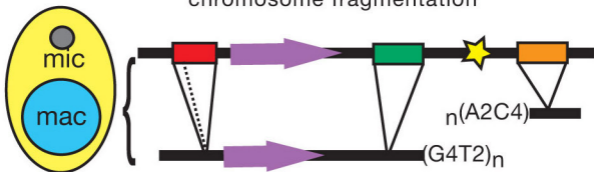


Figure 5. DNA Rearrangements of Ciliates

During development of a new macronucleus, extensive chromosome fragmentation and DNA elimination occur. (Top) DNA rearrangements occurring in *Paramecium* include both precise deletion of TA-bounded IESs (colored bars found in coding [arrow] and noncoding regions) and imprecise deletions (orange bar) that result alternatively in DNA deletion or fragmentation $(G4T3)_n$. (Bottom) In *Tetrahymena* imprecise deletion of IESs (colored bars) occurs at about 6000 loci, and chromosome fragmentation is specified by a conserved 15-bp sequence, the CBS (star).