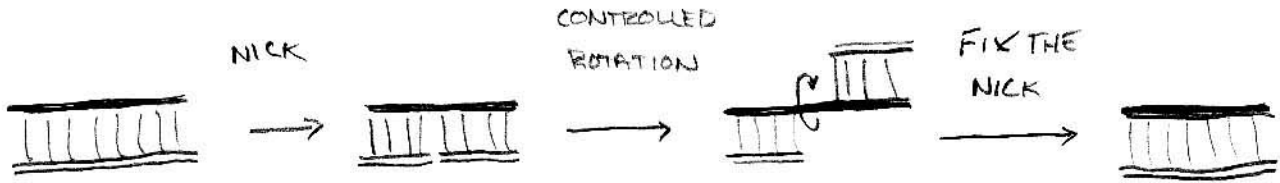




b) TYPE I B - PRESENT IN MANY EUKARYOTES AND PROKARYOTES, BUT NOT E. coli

- RELAX NEGATIVE & POSITIVE SUPERCOILS
- CUT ONE STRAND AND ALLOW CONTROLLED ROTATION AROUND UNCUT STRAND



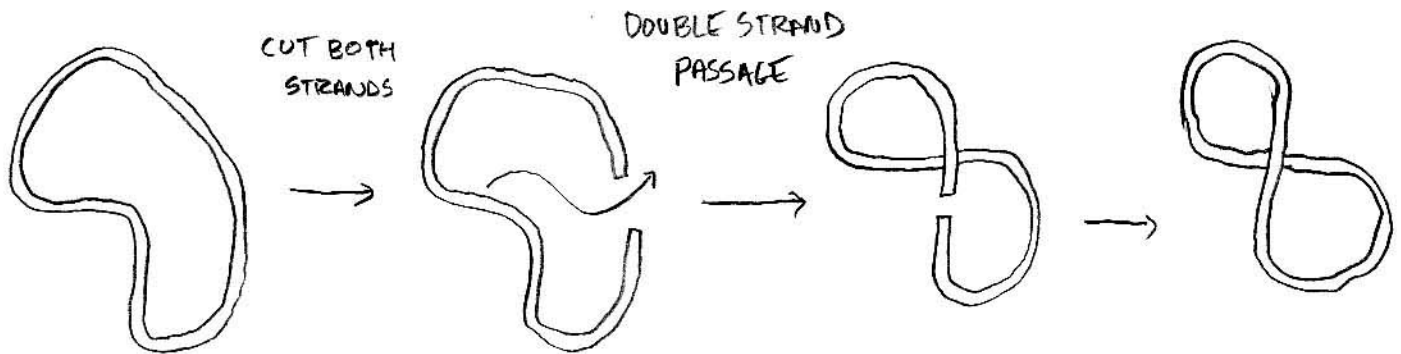
2) TYPE II ENZYMES CAN BE DIVIDED AS WELL:

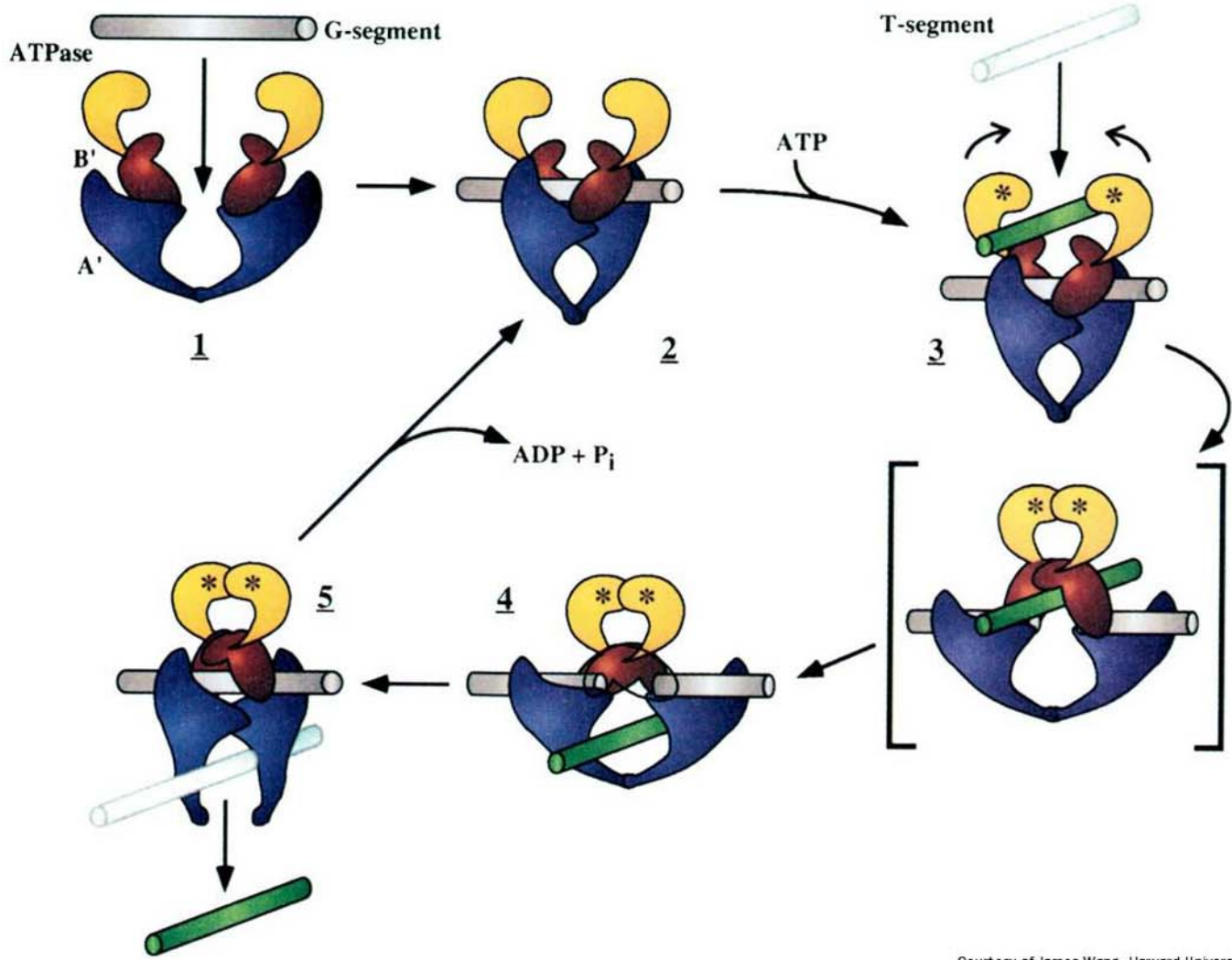
a) GYRASE - PRESENT IN PROKARYOTES

- INTRODUCES NEGATIVE SUPERCOILS (ATP DEP.)
- DOUBLE STRAND PASSAGE MECHANISM

b) OTHERS - PRESENT IN EUKARYOTES AND PROKARYOTES

- RELAX NEGATIVE & POSITIVE SUPERCOILS (ATP DEP.)
- DOUBLE STRAND PASSAGE MECHANISM





Courtesy of James Wang, Harvard University