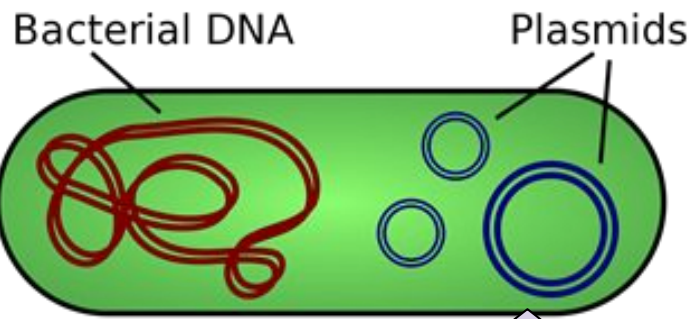
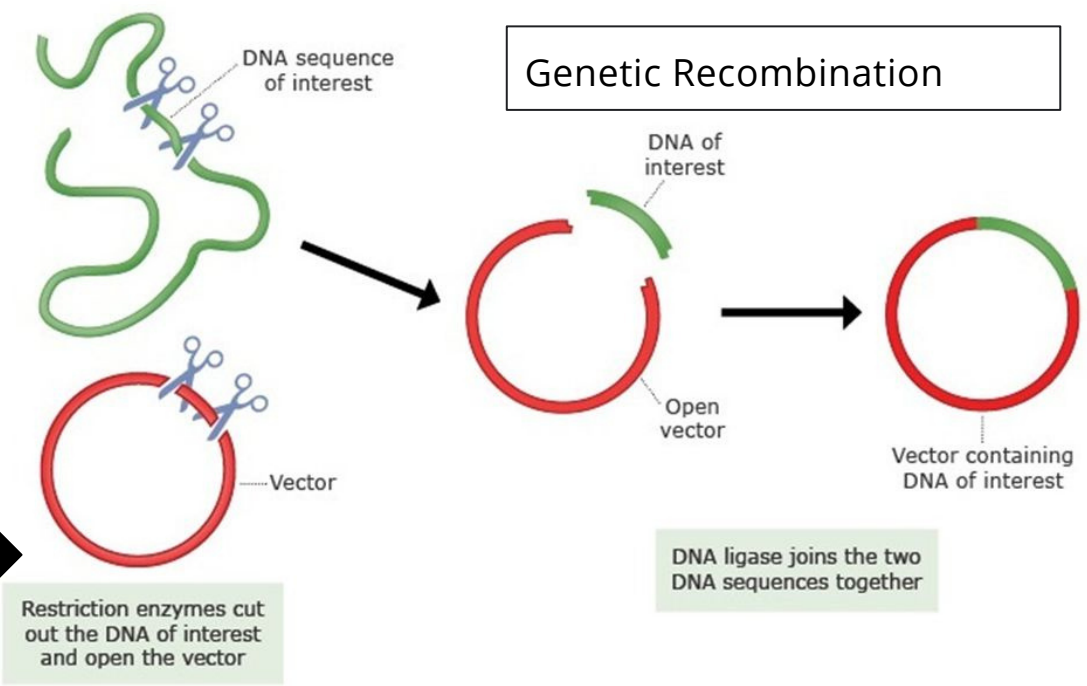


Laboratory 2A

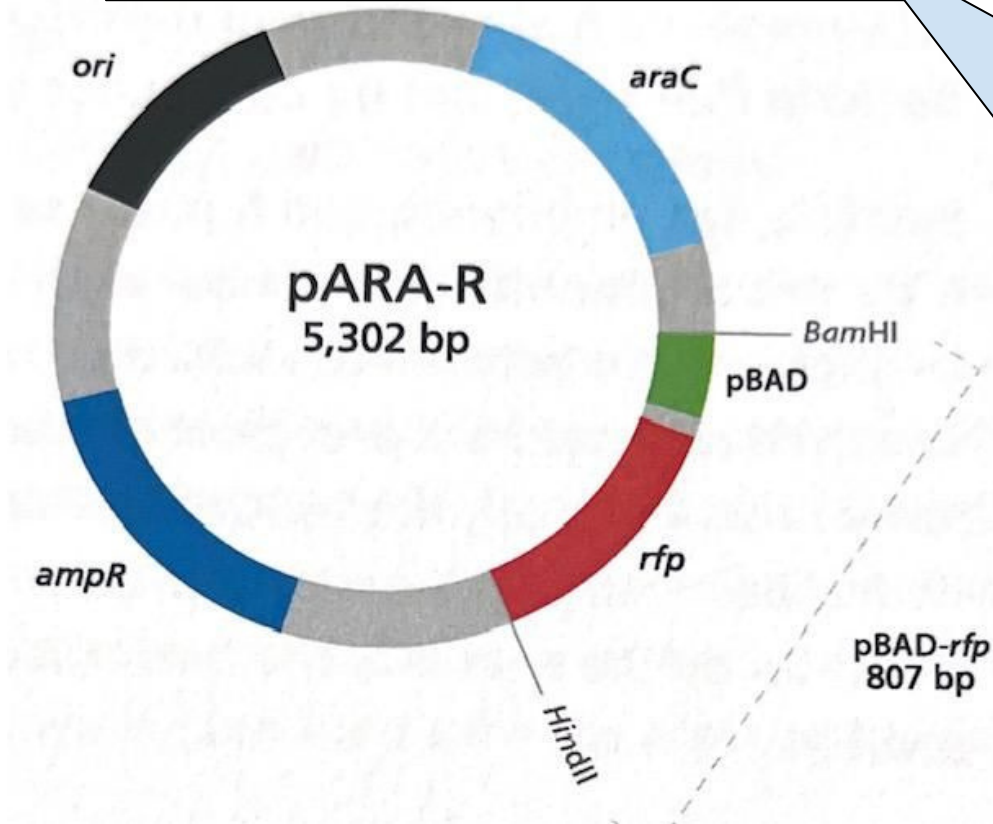


**Plasmid:** a small, often circular DNA molecule found in bacteria and other cells. Plasmids are separate from the bacterial chromosome and replicate independently of it. They generally carry only a small number of genes, notably some associated with antibiotic resistance. **Plasmids are ideal vectors** for use in genetic recombination.



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The components of the pARA-R plasmid:



- Ori site: a sequence for initiating replication
- pBAD promoter: for initiating transcription.
- ampR: ampicillin resistant gene, this selectable marker shows which bacteria have taken in the plasmid.
- *Bam*HI and *Hind*III restriction sites: near the promoter to insert the gene of interest
- rfp : the gene of interest, rfp symbolizes a gene that can code a desired protein, such as insulin.
- arabinose operon: turns on rfp gene expression in the presence of arabinose sugar.

What’s in my tubes?

