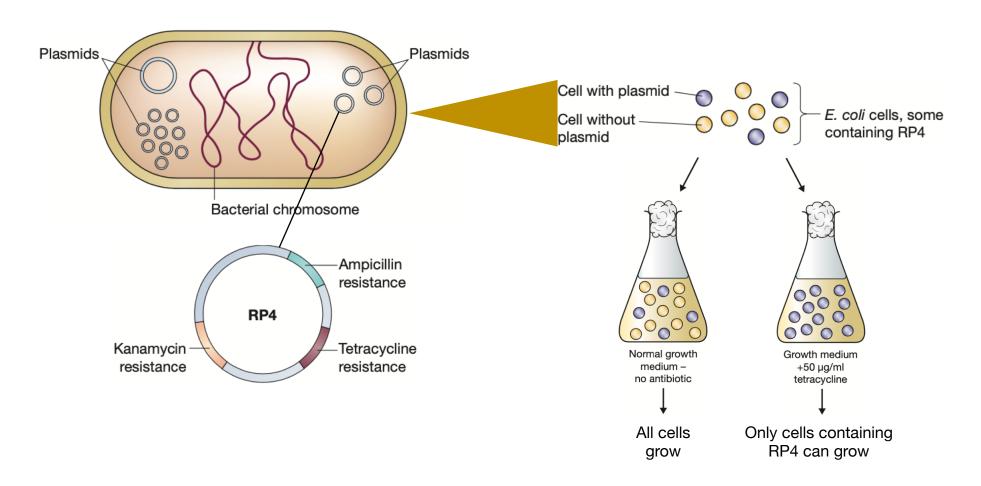
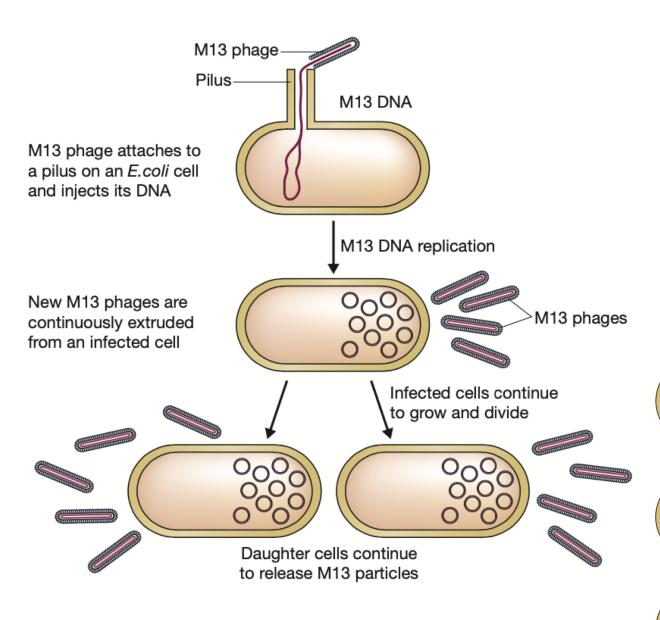
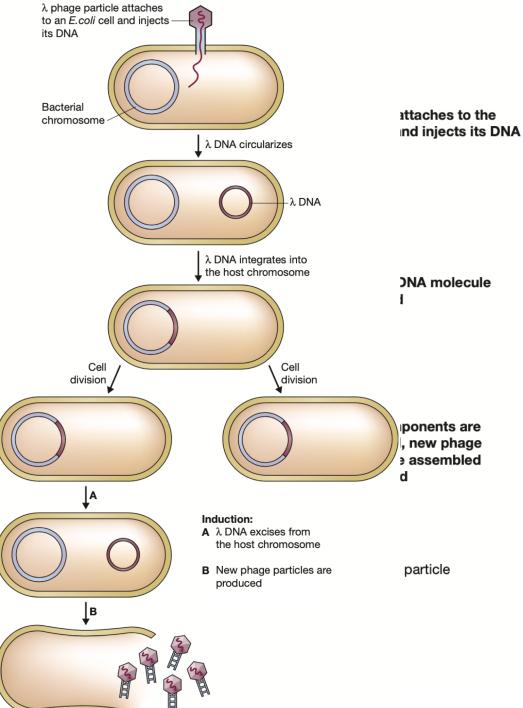
## GENE CLONING

Part I: Vectors for Gene Cloning

#### **Plasmids**



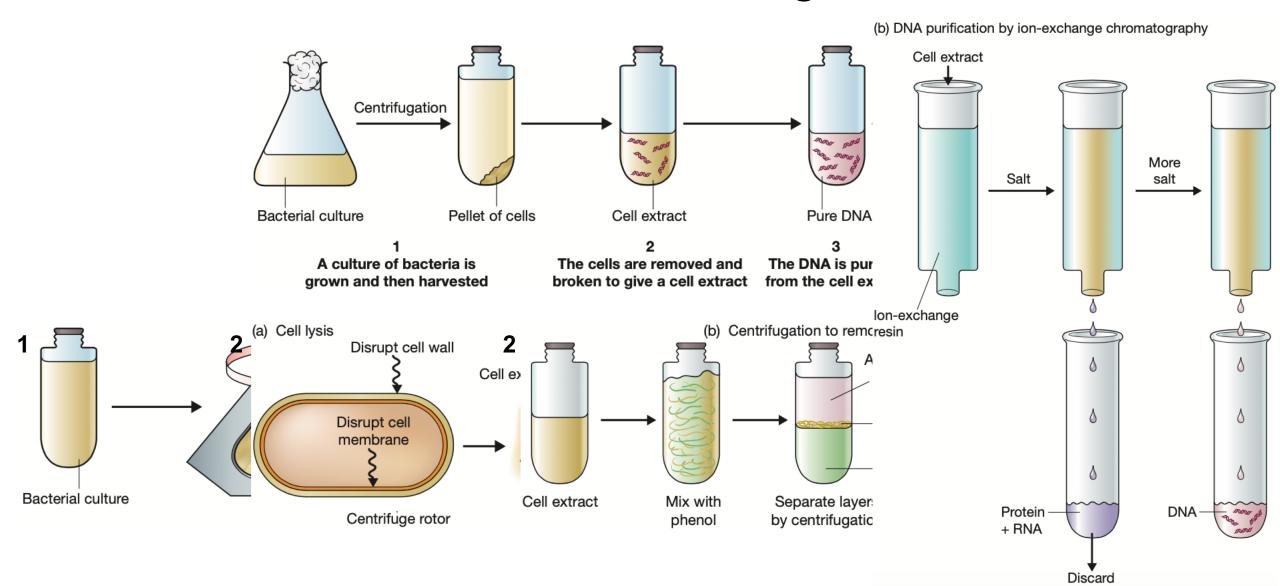




# Viruses are cloning vectors for other organisms

- adenoviruses are used in gene therapy.
- baculoviruses are used to synthesize important pharmaceutical proteins in insect cells.
- caulimoviruses and geminiviruses have been used for cloning in plants.

## Purification of DNA from Living Cells



### Plasmid isolation

Pellet of cells

Cell extract

Centrifugation

A culture of bacteria is

grown and then harvested

Bacterial culture

