

Advances in Genetics

Cut a rubber band with scissors. **Handle scissors with care.**

Make a new circle by taping a small piece of string to the ends of the rubber band.

You have modeled genetic engineering.



Section 2-3

Advances in Genetics



Selective Breeding:

- selecting a few organisms with desired traits

Inbreeding:

- crossing two individuals with identical alleles

Hybridization:

- crossing two genetically different individuals



Cloning:



- an organism genetically identical to the organism from which it was produced

Plants:

- use cutting

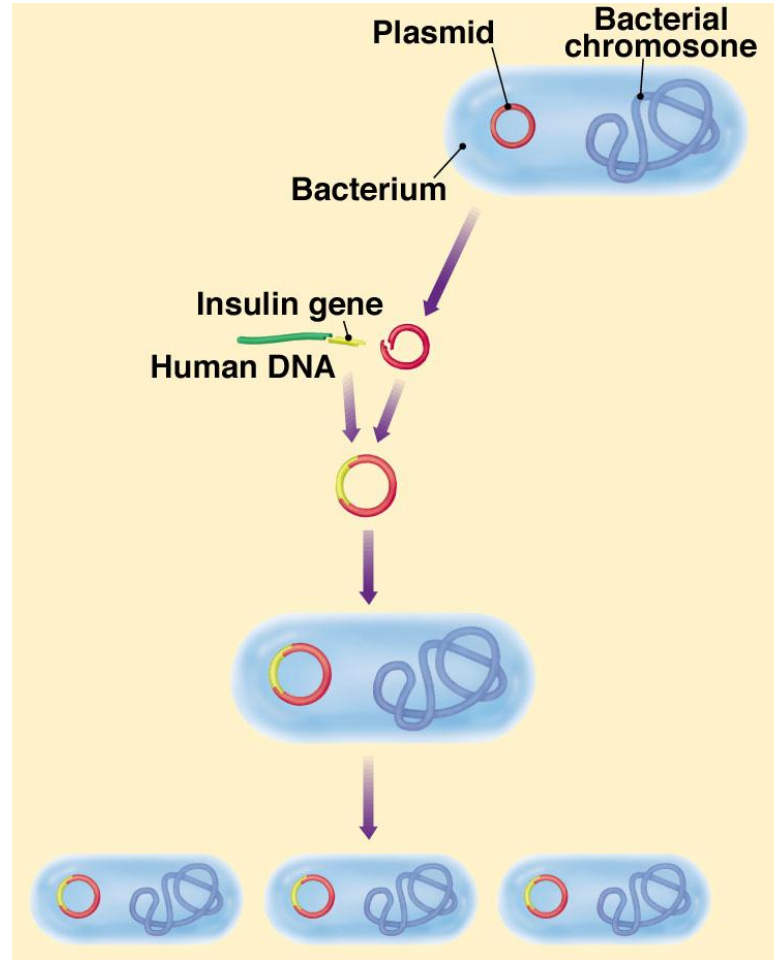


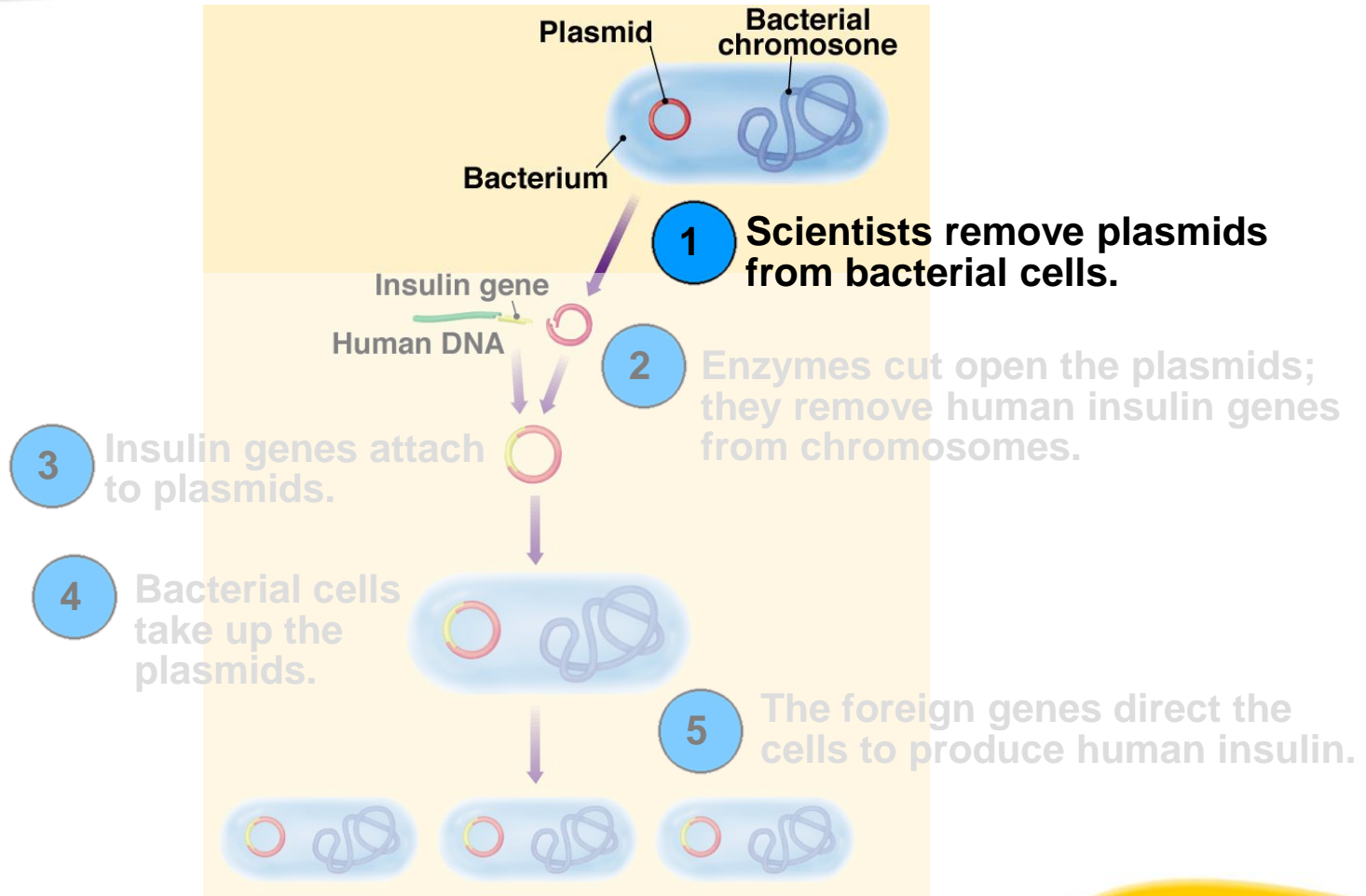
Animals:

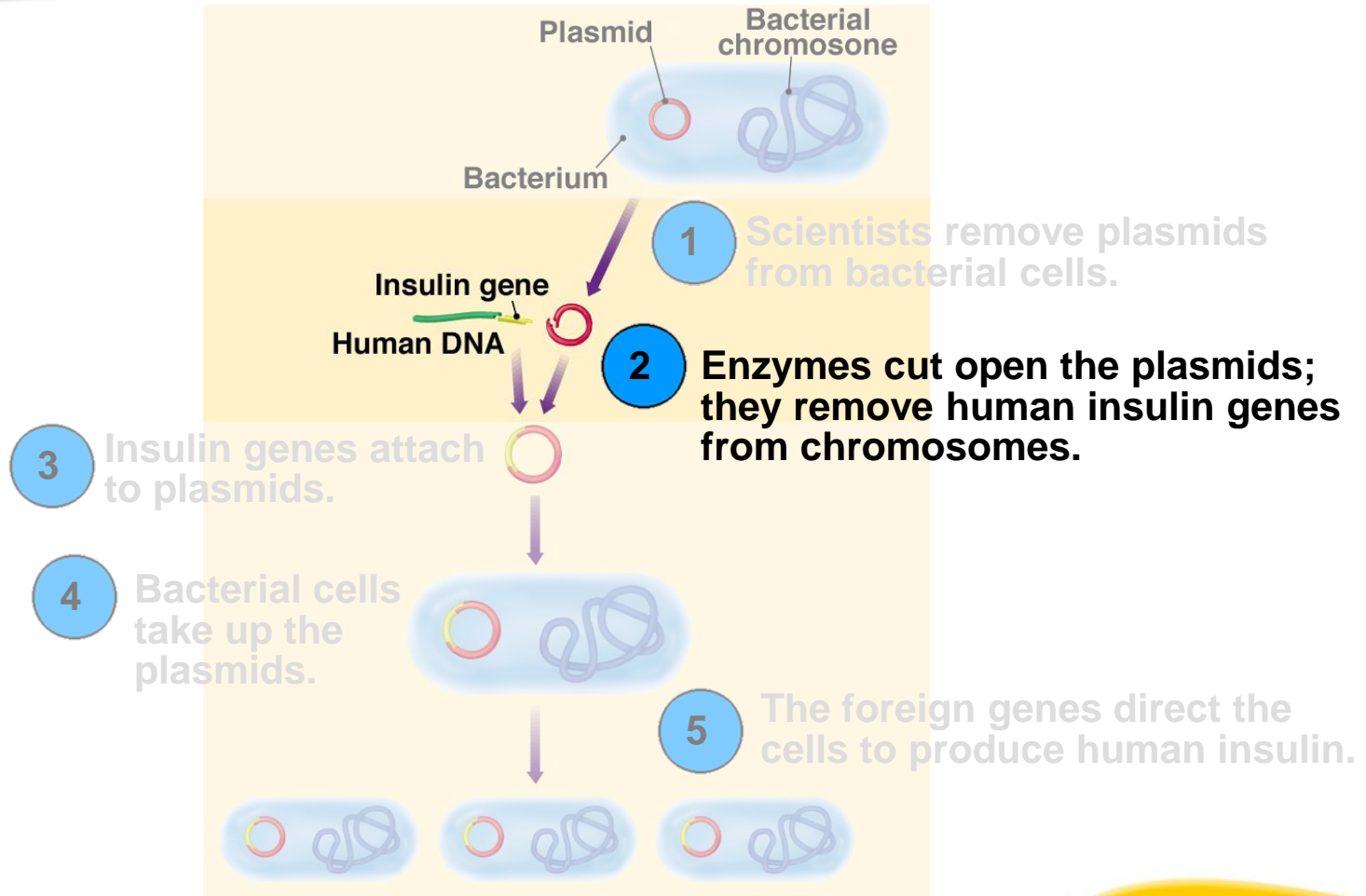
- genetically identical not necessarily physically identical

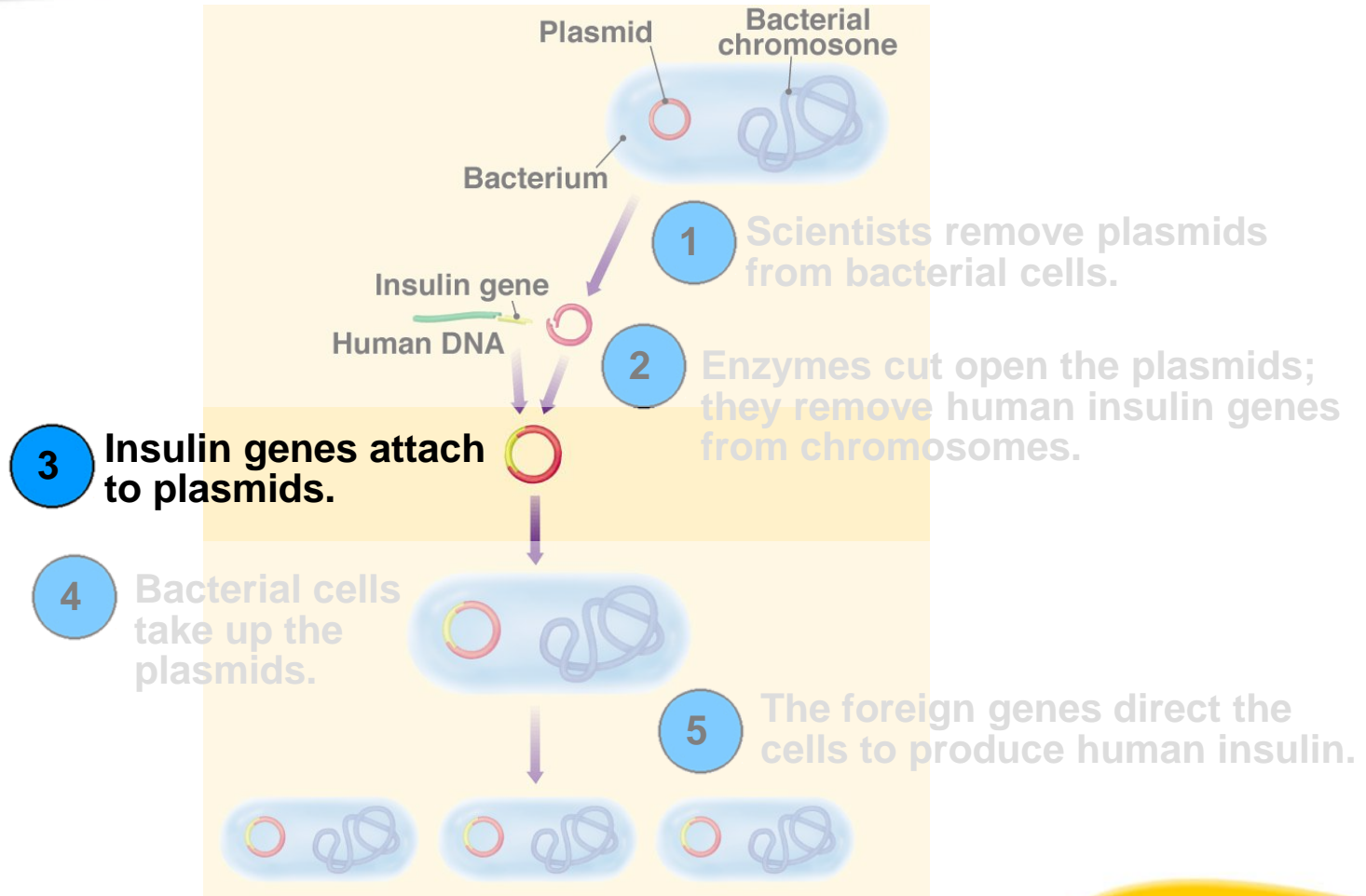


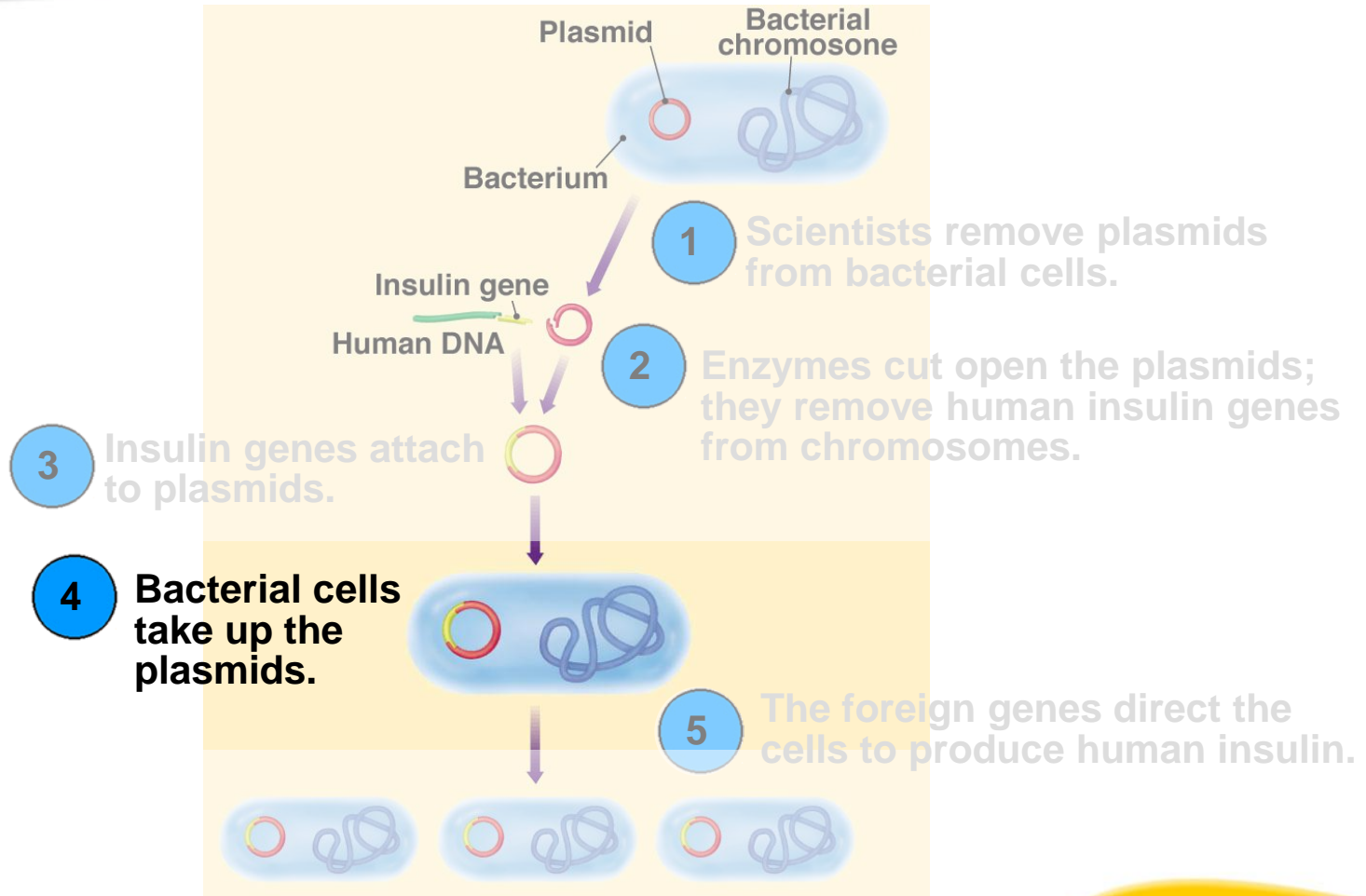
Advances in Genetics

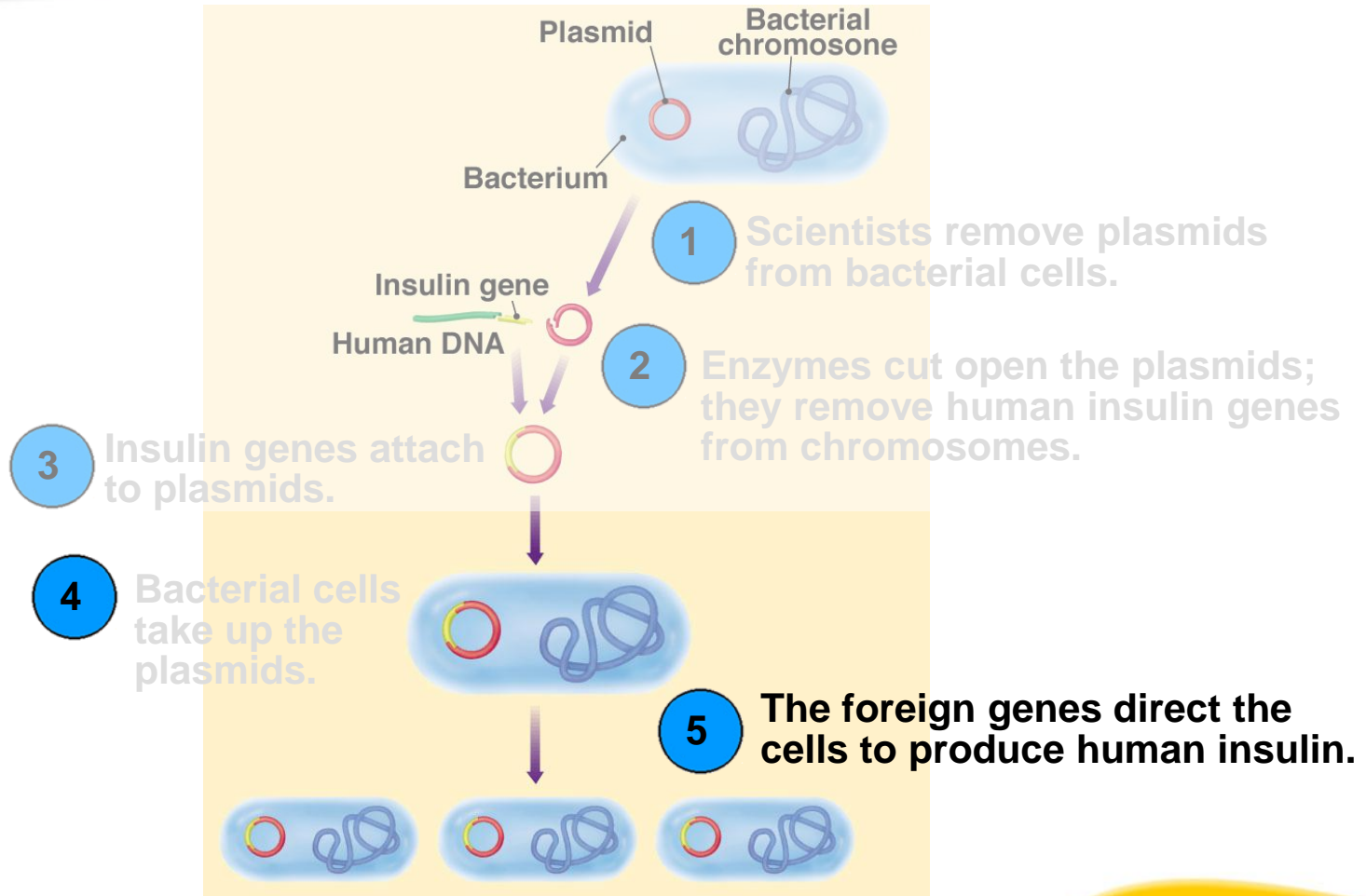




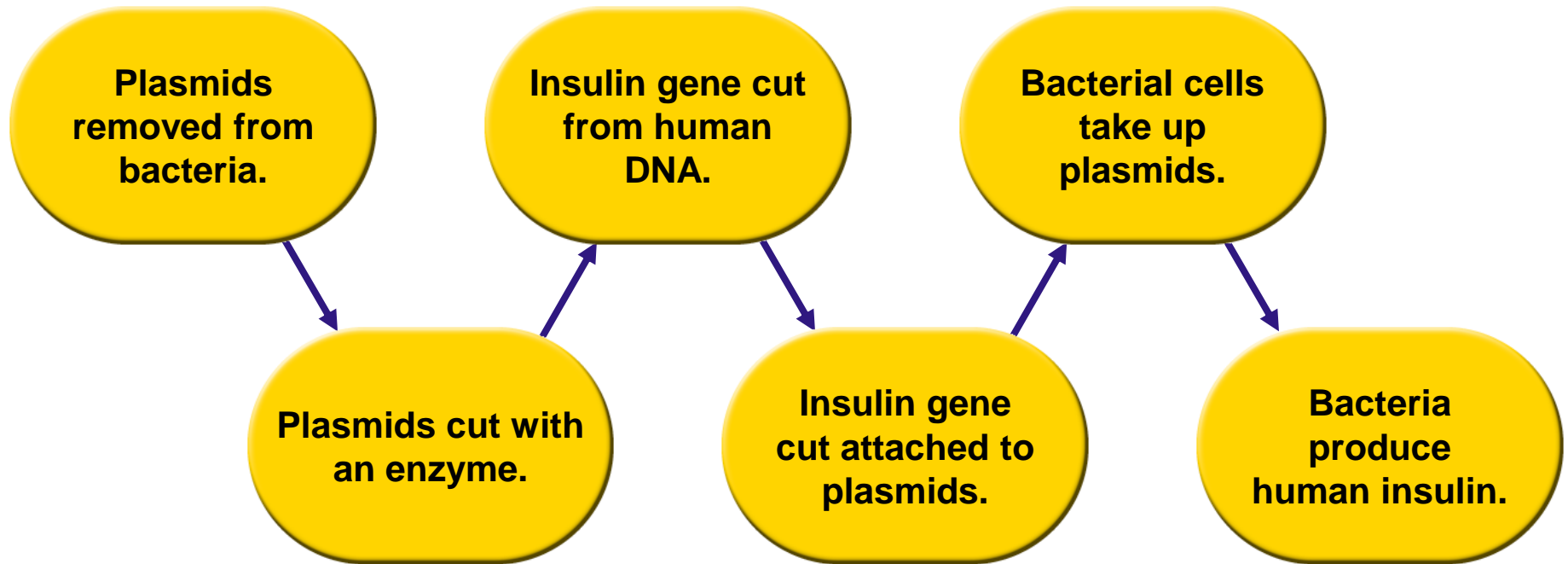








Genetic Engineering



DNA Fingerprinting:

- No two people have the same fingerprints
- No two people, except identical twins, have the same DNA

Human Genome Project

- The main goal of the Human Genome project is to identify the DNA sequence of every gene in the human genome.
- A genome is all the genes a human has

