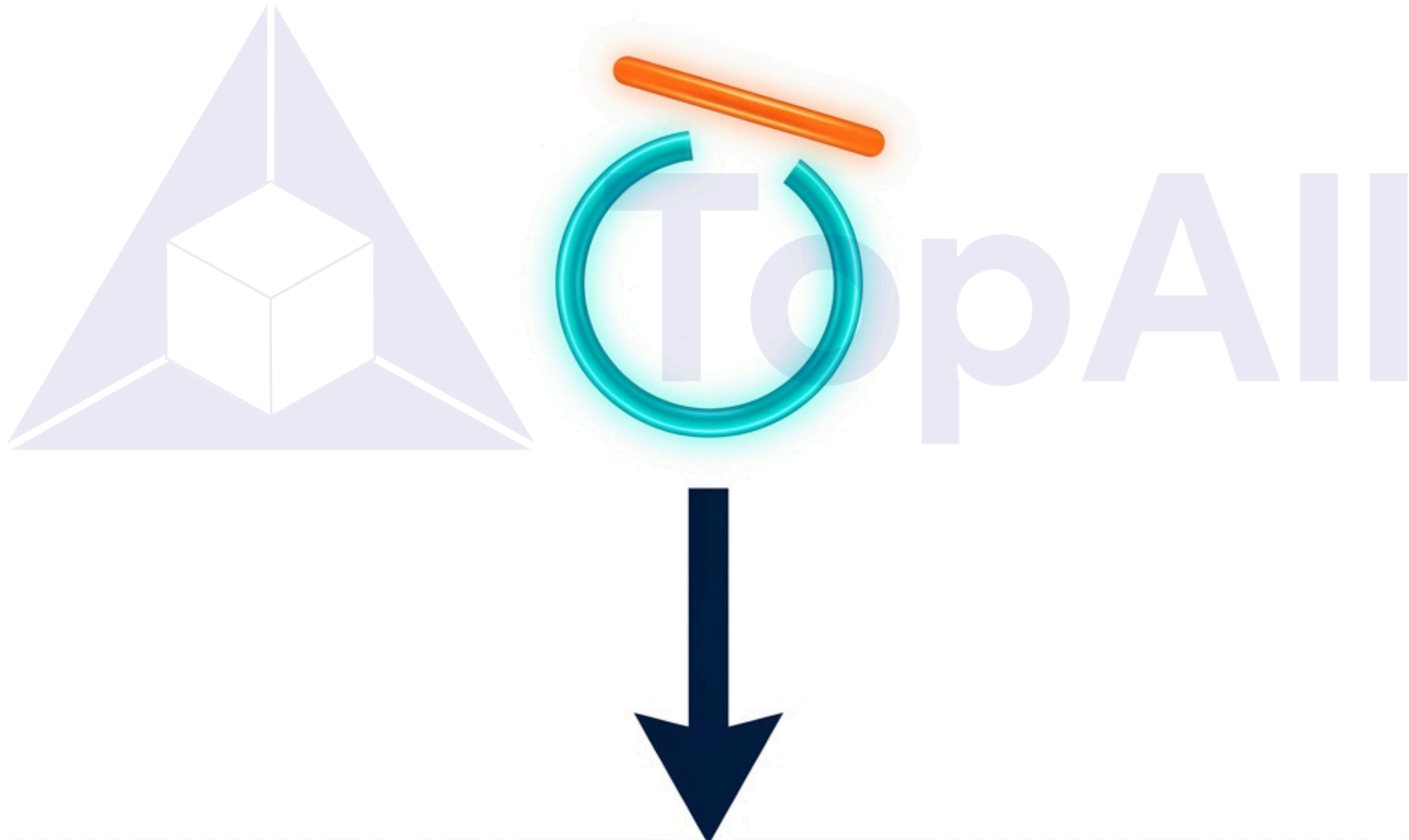


# R-DNA Technology in One Flow



A step-by-step visual guide to engineering recombinant DNA.



## Foreign DNA



Contains the “Gene of Interest”—the specific genetic code we want to multiply or express.

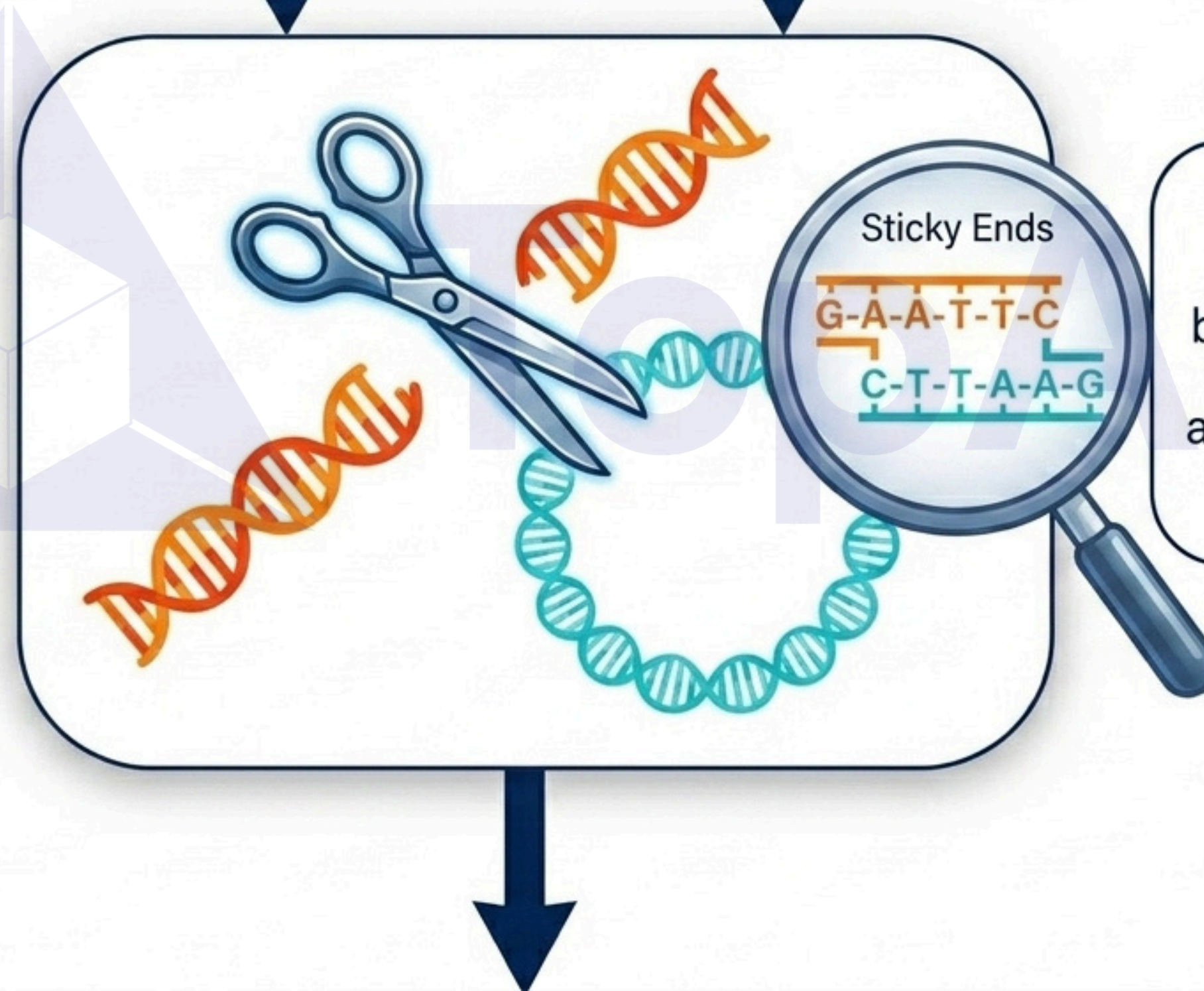
## Vector DNA



An autonomously replicating plasmid. Acts as the “Delivery Vehicle” to carry the foreign gene into a host.

# Same restriction enzyme cuts both

The restriction enzyme acts as "molecular scissors," inspecting the DNA and cutting at highly specific recognition sequences.



Because the same enzyme is used, both the foreign DNA and the vector DNA are left with matching "sticky ends".



# You've Learned the Theory. Let's Test Them Now.

$$E=mc^2$$



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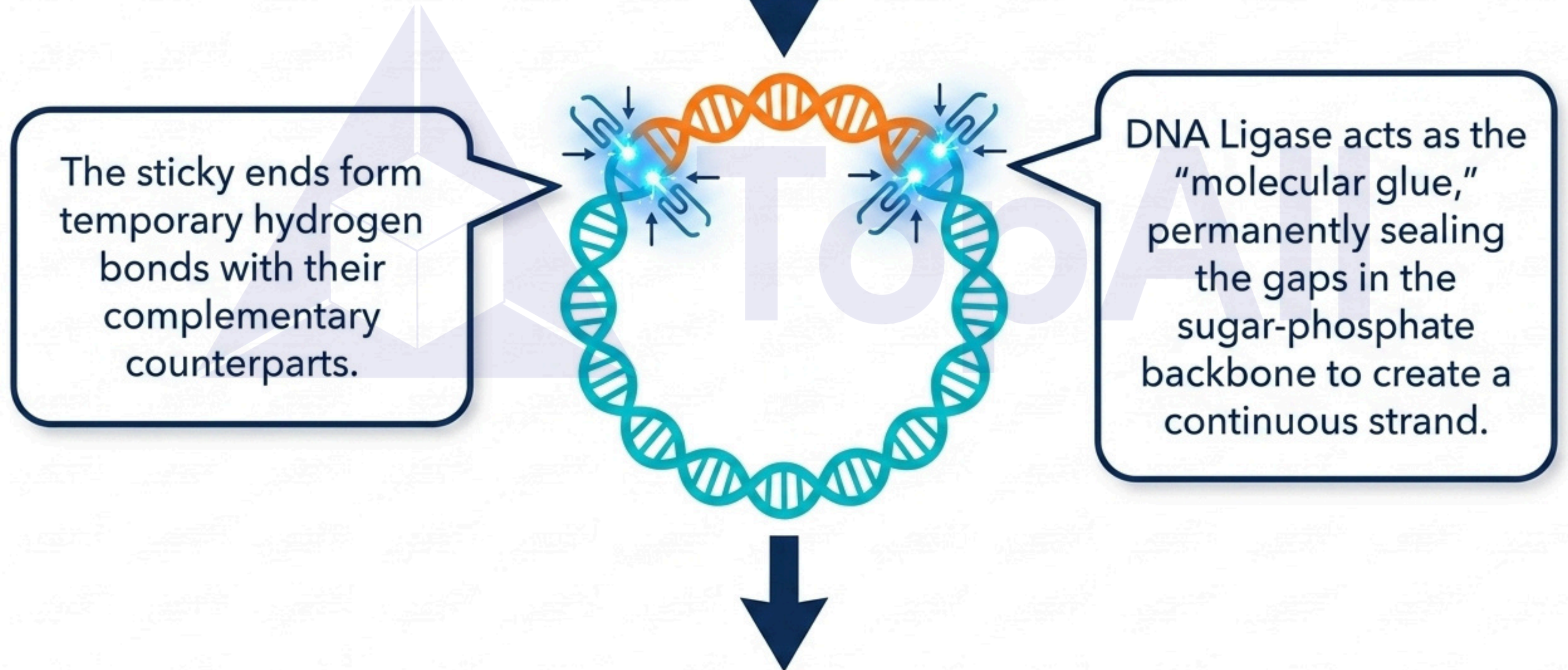
At [prep.topall.app](https://prep.topall.app)

## Key Highlights

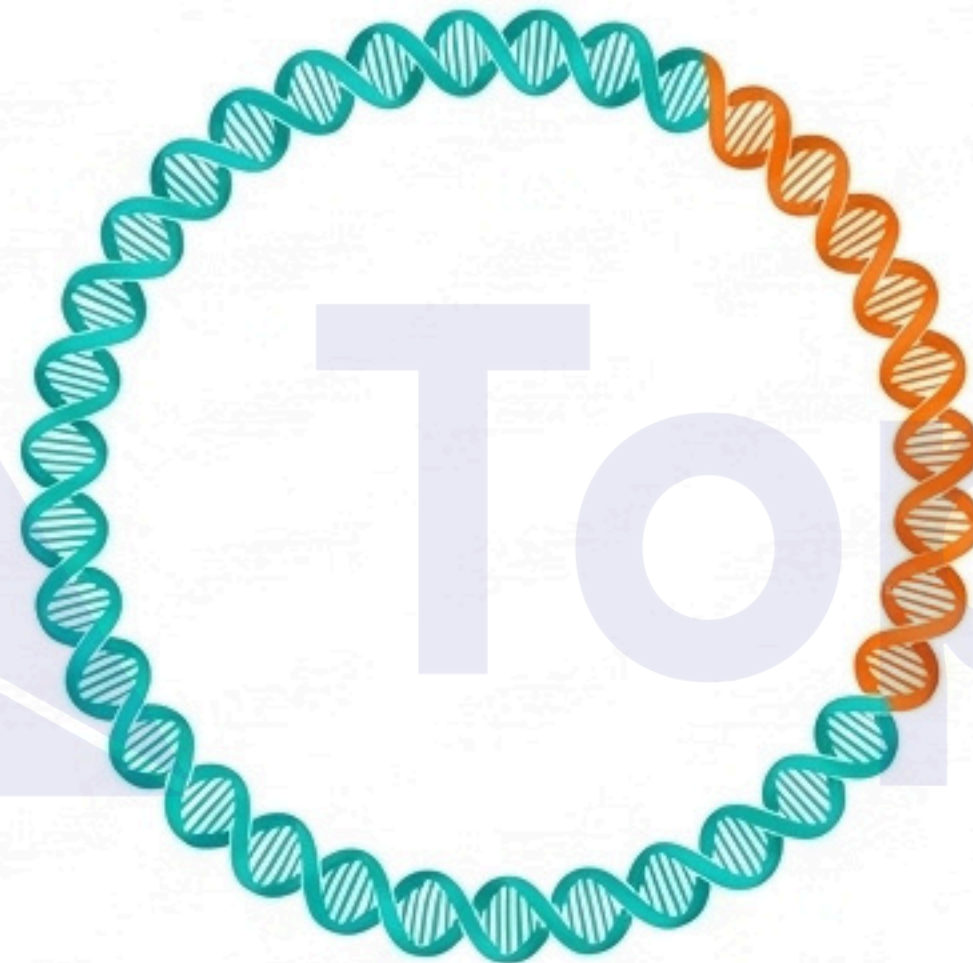
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# Ligase joins foreign DNA to plasmid



# Recombinant DNA molecule forms



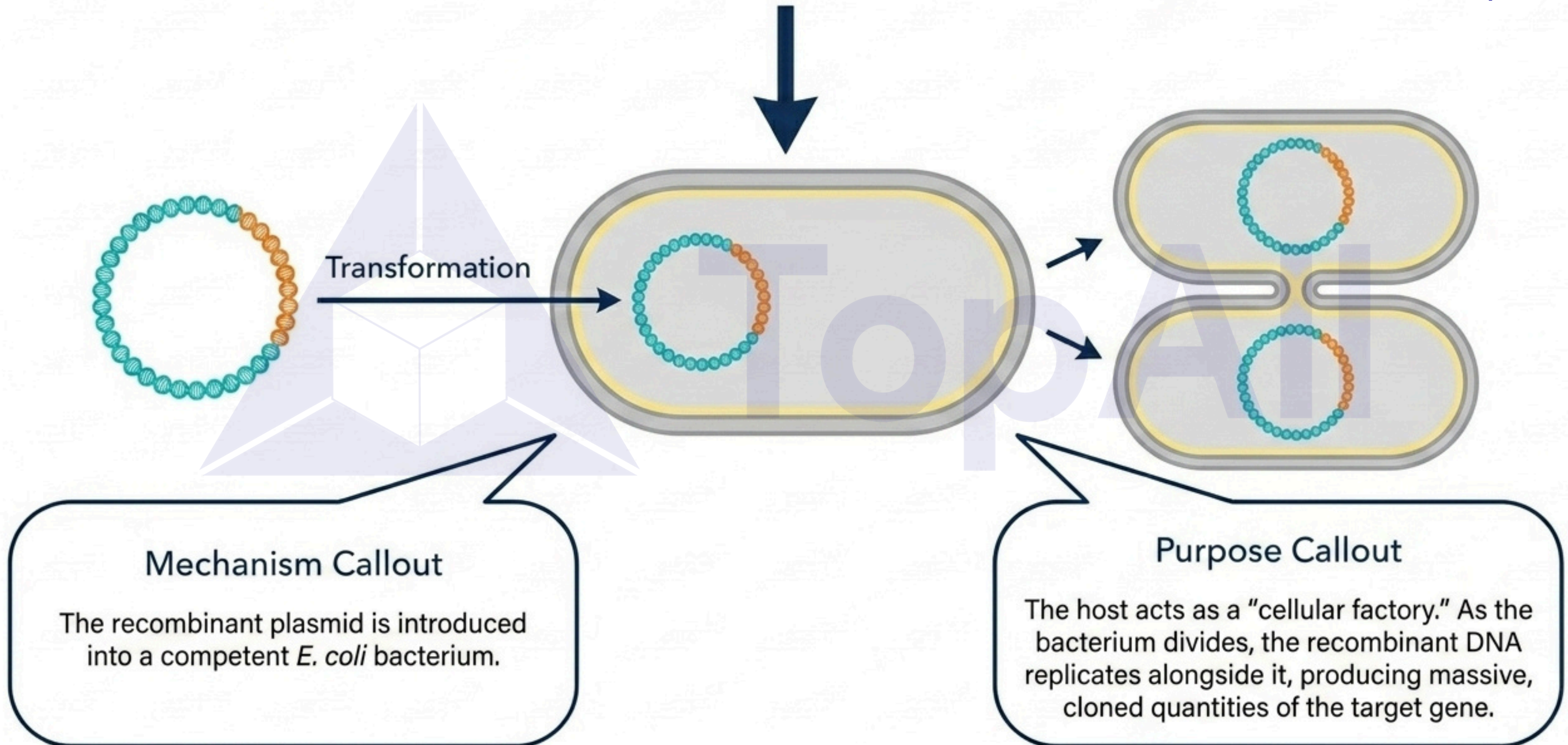
## Mechanism Callout

The integration is complete. The gene of interest is now physically part of the plasmid's genetic code.

## Purpose Callout

This hybrid ring is now capable of independent replication and is fully prepped for delivery into a living host.

# Transformation into *E. coli* cloning host





# You've Learned the Theory.

## Now Let's Test It.

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