

<virulent, capsulated> mice dies.

III. Heat-killed III S strain } when injected into mice  
<Non-virulent> } → mice survived.

IV. Heat-killed III S strain } when injected into mice  
and live IIR strain } → Mice dies.

→ Griffith concluded that the heat-killed III S bacteria were responsible for converting live avirulent IIR cells into virulent III S ones and called the phenomenon transformation.

He called the genetic information which could be passed from the dead III S cells to IIR cell 'the transforming principle'.

\* Avery-MacLeod-McCarthy experiment in 1944.

→ In 1944, Oswald Avery, Colin MacLeod and Maclyn McCarty revisited Griffith's experiments and concluded that transforming material was pure DNA not protein or RNA.

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→  
I. IIR → No transformation.

II. Type IIR cells + III S DNA extract → Transformation

III. Type IIR cells + type III S + DNase

No transformation

IV. Type IIR + type III S + RNase

Transformation

V. Type IIR + Type III S + Poteinase

Transformation