Transformation of Escherichia Coli through Absorption of DNA of Heat-Killed Bacteria

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Abstract

Escherichia coli is a bacterial organism which can transform itself through the absorption of other bacterial DNA. Through transformation, *E. coli* and other deadly bacterial strains can develop resistance to previously effective antibiotics. However, transformation is usually completed by extracting the DNA from a live bacterial cell. This paper will analyze whether a standard *E. coli* strain can transform itself through the uptake of the DNA of an ampicillin-resistant *E. coli* strain and *Serratia marcescens*. A positive test will be indicated by a new strain which contains ampicillin resistance and has a new red pigmentation.