



Title:

Zombie attack

Description:

Bacteriophages are viruses that attack and feed on bacteria for their living and replication and thus metaphorized as “Zombies “. The term “phage” was derived from an ancient Greek word “φαγεῖν” (phagein) meaning "to devour".

This picture is a Transmission Electron micrograph of T4 phages infecting *Escherichia coli* K-12 strain. (Magnification: 150000x, scalebar: 200nm). Phages were incubated with *E. coli* at an MOI (multiplicity of infection) of 10 for 1 hour at 37 °C and the samples were fixed and sectioned. The image was captured in JEOL JEM-2100 TEM at Zentrale Abteilung für Mikroskopie, Biocenter, Universität Würzburg.

Different stages of T4 phage infection in *E.coli* can be witnessed in this image: Phages use their tails to bind to the phage receptors in the bacterial membrane and inject their DNA into bacteria. The dark phage head (1) with intact DNA pre-injection and the clear (empty) phage head (2) post successful injection are clearly seen.