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MECHANIZMY INICJACJI REPLIKACJI GENOMU BAKTERIOFAGA T4

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Mechanisms initiation of Bacteriophage T4 genome replication

Abstract: Bacteriophage T4, one of the largest bacteriophages, encodes most, if not all, of the proteins required for replication and recombination of its DNA. One of the most interesting aspects of T4 replication initiation is the close coupling of replication end recombination. In any infecting chromosome, leading strand can be primed from pre-replication transcripts, independent of primase activity, at one of several *origins.* Replication from T4 *origins* creates single-stranded genome ends which can invade homologous region of coinfecting phage genome and thereby lead to recombinat phage. The initiation of T4 DNA replication after wilde type infection require assembly ofthe DSC (deoxyribonucleoside synthesising complex) and formation of dNTPs. The final proof of direct coupling and dNTP transfer lies in functionally combining for isolated DSC and DNA replication system.