UBA AMALACHUKWU

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PHARMACOLOGY

BCH 204

HIGHLIGHT THE STEPS OF DNA REPLICATION

Step 1: Replication Fork Formation

Step 2: Primer Binding

Step 3: Elongation

Step 4: Termination

OUTLINE THE FUNCTIONS OF DNA REPLICATION ENZYMES

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| ENZYMES | FUNCTIONS |
| Topoisomerase | Relaxes the super-coiled DNA |
| DNA helicase | Unwinds the double helix at the replication fork |
| Gyrase | relieves the build up of torque during unwinding |
| Primase | Provides the starting point for DNA polymerase to begin synthesis of the new strand |
| DNA polymerase | Synthesizes the new DNA strand; also proofreads and corrects some errors |
| DNA polymerase | Re-joins the two DNA strands into a double helix and joins Okazaki fragments of the lagging strand |