

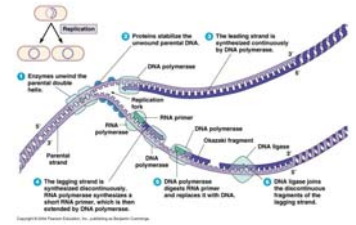
BACTERIAL GENETICS

DNA REPLICATION

CIRCULAR MOLECULE

DNA POLYMERASE

REPLICATION FORK



PROTEIN SYNTHESIS

FLOW OF INFORMATION

INFORMATION STORAGE
CODONS

THE GENETIC CODE
AMINO ACID CODONS

START CODON

STOP CODONS

MUTATION

GENERAL CONCEPTS

SPONTANEOUS MUTATIONS

INDUCED MUTATIONS

RADIATION

CHEMICALS

VIRUSES

MUTATION MECHANISMS

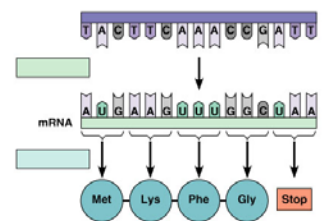
MISSENSE MUTATIONS

NONSENSE MUTATIONS

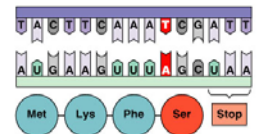
FRAME-SHIFT MUTATIONS

INSERTIONS

DELETIONS



(a)

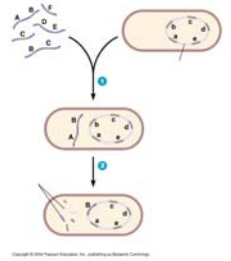


(b)

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RECOMBINATION

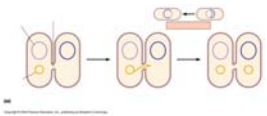
GENERAL CONCEPTS



TRANSFORMATION

CONJUGATION

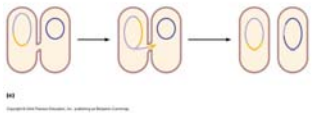
PLASMIDS



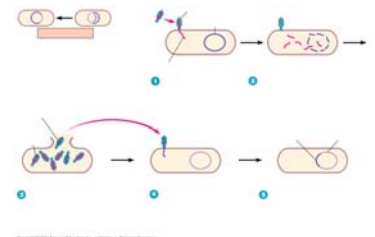
F+

F-

Hfr



TRANSDUCTION



THIS PODCAST (“GDOD BUG, BAD BUG”) DEALS WITH RECOMBINATION AND WHAT IT CAN LEAD TO:
<http://webhome.broward.edu/~sobenauf/mcb2013/podcasts/11%20Good%20bug,%20bad%20bug.mp3>

RECOMBINANT DNA TECHNOLOGY / GENETIC ENGINEERING

BASIC METHODOLOGY

RESTRICTION ENDONUCLEASES / RESTRICTION ENZYMES

LIGASES

DNA POLYMERASE

RECOMBINANT PRODUCTS

OVERVIEW

PHARMACEUTICALS
VACCINES
AGRICULTURAL

GENE THERAPY

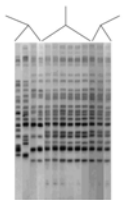
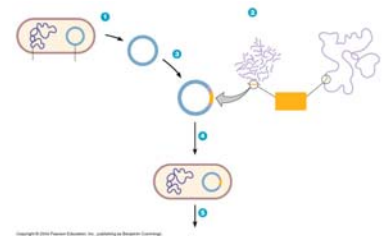
MOLECULAR DIAGNOSTIC TESTS

OVERVIEW

DNA FINGERPRINTING

GENERAL CONCEPTS

PROCESS



USES IN MICROBIOLOGY

GENE PROBES

GENERAL CONCEPTS

PROCESS

SOUTHERN BLOTTING

GENERAL CONCEPTS

PROCESS

POLYMERASE CHAIN REACTION (PCR)

GENERAL CONCEPTS

PROCESS

LISTEN TO "EPIDEMIC CLONES" – A PODCAST ON DNA FINGERPRINTING AND FOODBORNE INFECTIONS:
<http://webhome.broward.edu/~sobenauf/mcb2013/podcasts/Epidemic%20Clones.mp3>
