



Due to Chemotaxis advance to Pancreas

Chemotaxis is a mechanism by which bacteria rapidly respond to changes in the chemical composition of their environment, approaching chemically favorable environments and avoiding unfavorable ones.

Advance to Go
collect
100 units

Malfunctioning of restriction endonucleases starts affecting the bacteria itself, bacteria needs to give up 50 protein units.

Restriction Endonucleases are exclusively bacterial enzymes that cleaves DNA at various sites. These are used as defense mechanisms against bacteriophages.

Plasmids affected adversely, no antibiotic resistance. Give up 150 protein units.

Plasmids are small, extrachromosomal DNA molecule within a bacteria that is physically separated from chromosomal DNA and can replicate independently. These circular DNA provide antibiotic resistance to bacteria.

Advance to the nearest gland. If uninfected, you may choose to infect it. If infected, pay the player twice the rental to which they are otherwise entitled.

Advance token to nearest accessory gland. If uninfected, you may choose to infect it. If infected, throw dice and pay a total ten times the amount thrown.

Random mutation leads to variation of the bacterial genes, and outpowers the host's immunity system. Get Out of Lymph node Free.

Go Back 3 Spaces.

**Go to the lymph node.
Go directly to the
lymph node, do not
pass "Go", do not
collect any proteins.**

**Zymogen granules
and condensing
vacuoles mature,
collect 200 protein
units.**

These granules are the parts of the bacterial cells that store the energy reserves as well as other important metabolites.

**Error in DNA
replication in your
favor. Collect 200 units**

Spontaneous point mutation occur during DNA replication. The rate of mutation may be increased by mutagens (anything that causes mutations), which can be physical or chemical.

Advance to "Go"
(Collect 200 units)

**Transposons
disrupt gene
functionality, you
lose 15 units.**

Transposons are sequences of DNA that can relocate by themselves, insertion of which can cause mutations.

**Get Out of lymph
node free.**

Advance to the nearest gland. If uninfected, you may choose to infect. If infected, pay the player twice the rental to which they are otherwise entitled.

Go to the lymph node. Go directly to the lymph node, do not pass GO or collect 200 units.

Horizontal gene transfer favors you, you receive useful fragments of DNA. Collect 10 units from every player.

Horizontal gene transfer (HGT) is the movement of genetic information between organisms such as bacteria, resulting in evolution, usually involving spread of antibiotic resistance.

Host comes in contact with UV rays, it causes DNA breakage in the bacteria cell. You lose 25 units.

UV rays interfere with important processes (such as transcription) during protein synthesis, thereby, damaging bacterial cells.

Phagocytic cells in the host immunity system destroy some of your cells, you lose 100 units.

Certain enzyme activities result in phagocytic cells (cells that are involved in immunity response) releasing substances that destroy cells infected by bacteria).

**DNA synthesis has
been inhibited, you
lose 50 units.**

Anti bacterial agents target
enzymes that are necessary
for the supercoiling of
bacterial DNA

**Host takes antibiotics,
protein synthesis is
inhibited. You lose 25
units.**

Protein synthesis is a complex, multi-step process involving many enzymes. The majority of antibiotics that block bacterial protein synthesis interfere with the processes at the bacterial ribosome level.

**You lose your PAMP,
hence the immune
cells no longer respond
with the same
intensity. You gather
extra proteins, collect
10 units.**

Pathogen-associated molecular patterns (PAMPs) are recognized by pattern-recognition receptors (PRRs), which play a key role in the recognition of pathogens or of cellular injury.