

GLOSSARY

Antibody - Y-shaped protein produced mainly by immune cells that is used by the immune system to neutralize pathogens such as virus and bacteria.

Antigen - A toxin or other foreign substance which induces an immune response in the body, especially the production of antibodies.

Antigen presenting cells - Large group of various cells that trigger the cellular immune response by processing an antigen and exposing it in a form recognizable by T cells in the process known as antigen presentation.

B cell - Is a type of immune cell that produces antibodies to enable antibody mediated immune response.

Booster dose - It is an extra administration of a vaccine after an earlier (prime) dose and intended to increase immunity against that antigen back to protective levels, after memory against that antigen has declined through time.

Cytotoxic or Killer CD4-T cell - Is an immune cell that kill cells that are infected (particularly with viruses), or cells that are damaged in other ways.

DNA Plasmid - A small, extrachromosomal DNA molecule within a cell that is physically separated from chromosomal DNA and can replicate independently. Plasmids used experimentally for the purpose of research are called vectors

Genome - Complete set of genetic information in an organism.

Helper CD4 T-Cells - A type of immune cell that stimulates killer T cells, macrophages, and B cells to make immune responses.

Immune system - Complex network of cells and proteins that defends the body against infection.

Messenger RNA or mRNA - Molecules in the cell that carries codes from DNA in the nucleus to the cell machinery responsible for protein synthesis (cytoplasm) within a cell.

Pathogens - Microorganisms that cause a disease eg bacteria, virus.

Peptides - A short chain of amino acids (basic units of protein)

Tolerance to the Antigen - Tolerance is the prevention of an immune response against a particular antigen.

Viral Vectors - Tailored virus for the delivery of the infective viral gene.

Weakened virus - Retained Immunogenicity (ability of an antigen, to provoke an immune response in the body) but no pathogenicity (the property of causing disease).