



Glossary

Term	Meaning
Adjacent cells	Cells that are close together.
Adaptor protein	They are protein-binding molecules that substances together and help produce large signal transduction cascade.
Amplification	Amplification multiple copies of a chromosome.
Apoptosis	A programmed cell death
Blood	A fluid found in mammals that contains cells, water, proteins and gases and travels around the body.
Bowel	Another term for intestine. The small bowel is involved in food digestion and absorption. The large bowel absorbs water.
Breast	A type of gland that produces milk in women and is surrounded with fatty tissue.
Cancer	A diseases caused by genetic mutations that lead to uncontrolled cell growth.
Carcinogenesis	Formation of tumours
Carcinoma	A cancer commonly found around the lining of organ tissues (epithelial)
Cell	A simplest unit of a living organism.
Differentiation	Changes to cell shape and function where unspecialised cells become specialised for specific functions
Disulphide	An SS-linkage or two sulphur atoms or sometimes a disulfide bridge
DNA	Deoxyribonucleic acid and is one of the two nucleic acids. It consists of 2 polynucleotides coiled together to form a double helix.
DNA replication	The process where DNA is copied
Egg	female sex/reproductive cell.
Endosome	It is a sac found in the cytoplasm involved in nutrient, sorting of proteins, lipids and carbohydrates. They also regulate the expression of cell surface receptors and transporter proteins.
Enzyme	The protein responsible for speeding a chemical reaction
Epidermis	The outer layer of the skin
Exon	The coding regions that are present in the spliced, mature mRNA.
Extracellular fluid	Fluid outside the cell.
Gene	Hereditary unit and short section of DNA that helps determine characteristics of an organism.
G-protein	Intracellular protein that binds to guanosine triphosphate (GTP) and guanosine diphosphate (GDP) that participate in signalling pathways.
GTP	An energy source found in the cytoplasm. It has a similar role to ATP to provide energy. GTP facilitate signal transduction with G protein and helps synthesise RNA.



Glossary

Importins.	It is a type of a transporter protein that moves proteins from the cytoplasm to the nucleus. It stimulates the translocation of proteins with nuclear localization signals into the nucleus via nuclear pore complexes (NPC).
Intron	The non-coding regions found between the coding sequences of genes.
Melanoma	Melanoma A skin cancer where cells called melanocytes found in the epidermis produce melanin. Melanin is a dark brown pigment that protects from the sun's radiation
Monoclonal antibodies	Monoclonal antibodies Antibody produced artificially from a cell. It is produced by joining white blood cells (lymphocytes) in the spleen of a mouse with cells from myeloma cells in the mouse. The artificial lymphocyte then targets cancer cells.
mRNA	mRNA an abbreviation of messenger RNA and has key information to produce a polypeptide (protein). It carries information from nucleus to the ribosome.
Mutation	Mutation: A random change in the DNA that affects that particular gene or chromosome.
Nucleotide	Nucleotide A molecule that has a phosphate group, five-carbon sugar and base.
Nucleus	Nucleus: Organelle that contains genetic information to control cell.
Oncogene	Oncogene A mutated form of a gene that leads to uncontrolled growth of cancer cells. It is derived from proto-oncogenes.
Organelle	Organelle a structure or little organ with a defined structure and function.
Phosphorylation	A phosphate group into (a molecule or compound):
Proliferation	A rapid increase in number.
Prostate	It is found in the male reproductive system and secretes fluid that is part of the semen.
Protein	A large molecule containing amino acids and functions for growth and repair.
Proteosome	This is proteins are being degraded.
Radiation	The transfer of energy as waves or particles through space or a material.
Supercoiling	DNA that underwent more in the same direction as or in the opposite direction
Transcription factor	protein that helps transcribing genes by affecting RNA polymerase
Transcription	The process of using DNA as a template to make an RNA molecule
Translation	The process of using an mRNA molecule (type of mRNA) as a template to make a protein.
Translocation	The movement of a substance from one area to another
Tumour	Tumour An overgrowth of cells without use.
Tyrosine kinase	An enzyme that functions in cell division and growth.
Ubiquitination	A reversible process where proteins are directed by ubiquitin. The deubiquitinating enzymes can cleave ubiquitin from modified proteins.