



Glossary

Term	Meaning
Actin	A type of protein that forms part of the cytoskeleton and support the cell membrane. It helps with strength, shape and movement of the cell.
Autophagy	A mechanism where the damaged organelle becomes degraded.
Bannayan-Riley-Ruvalcaba syndrome	A genetic condition with the following characteristics: high birth weight, large head size (macrocephaly), hamartomas, and dark freckles on the penis in male infants.
Basal	Resting state/good health
Carcinoma	Cancer that arises from the epithelium that lines the skin and internal organs.
Cowden disease	An inherited condition with the following characteristics: hamartomas, large head size (macrocephaly), benign tumours of the hair follicle (trichilemmomas), and white papules with a smooth surface in the mouth (papillomatous papules). It commonly occurs in patients that are in the late 20s.
Cytokines	Proteins that conduct specific and non-specific immune defences.
Cytoskeleton	It is a structure that has two types of protein filaments: actin, intermediate and microtubules. Together, they help give the cell shape, protect the cell and help with motility.
Differentiation	Changes to cell shape and function where unspecialised cells divide to become specialised for specific functions.
Downregulation	e process by which a cell decreases the production and quantities
Epithelial mesenchymal transition	A tissue environment whose role is help alter cell to cell interactions and increase survival of cancer cells to invade and metastasize.
Extracellular matrix	A network of material that forms a complex outside of cell for strength, support and organisation.
Glycogen synthases	A key enzyme in the production of glycogen from glucose. Glycogen is a storage form of glucose in



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	liver and muscle cells. The production of glycogen is called glycogenesis.
Hamartoma	A condition where there is a non-cancerous overgrowth of mature cell tissue that are not arranged appropriately.
Heat shock protein (HSP)	They are proteins that protect the body from stress and maintain the regulation of proteins. They also help transduce the signal, regulate the cell cycle and apoptosis.
Inflammation	Local innate response towards injury or infection. It is characterised by swelling, redness or pain.
Lipin	A transactivator that regulates genes involved in the production and metabolism of lipids.
Lymphangi leiomyomatosis (LAM).	A rare and long-term condition that affects LAM cells in female patients. It can sporadically occur or as a result of a genetic condition called tuberous sclerosis where non-cancerous tumours develop as a result of mutations in tuberous sclerosis complex (TSC) genes. LAM cells are mainly found in the lungs, kidneys and lymphs. Lymphs are tubular structures that fight off infection and excess fluid. LAM cells form holes that block airways and affect the rate of oxygen uptake.
Lhermitte-Duclos disease	A rare, benign tumour of the brain with the following common characteristics: abnormal development and function of the cerebellum, increased pressure, excess fluid (hydrocephalus), headache, nausea, mobility problems (ataxia) and vision.
Metabolism	The sum of chemical and physical changes that occurs in the body.
Ornithine decarboxylase (ODC)	An enzyme that converts the non-essential amino acid ornithine into putrescine. Ornithine plays a major role in the urea cycle where excess nitrogen in the form of ammonia is produced when protein is broken down. Putrescine helps with



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	the stabilizing of DNA, cell membrane, cell division, differentiation and apoptosis.
Peutz-Jegher's syndrome	A familial disorder where there are lots of polyp structures along the lining of small intestine and pigmented areas around the lips, mouth, palms and soles.
Phosphorylation	A phosphate group into (a molecule or compound):
Prognosis	The course and outcome of the patient's disease.
Proteus syndrome	A genetic condition that has a rapid onset that affects toddlers and infants where there is a patchy overgrowth and disfigurement on fat, skin, bone and nerves.