



**FINANCIAL STATEMENTS**

**Statement of Operating Income and Expenditure – Year ended 31 December 2008**

INCOME:	NOTE	2004	2005	2006	2007	2008
University of Queensland (Operating Grant)	1	6,877,099	7,225,765	10,767,311	11,087,942	11,062,918
University of Queensland Research Grants		228,999	334,500	252,252	300,436	190,291
State Government		10,425,000	10,425,000	10,175,000	11,127,168	10,857,620
Src Grant (Australian Research Council)		1,117,038	1,137,436	1,159,047	1,182,516	1,206,166
Australian Research Council	2	4,261,849	4,744,519	5,218,279	6,010,239	5,977,542
Arthritis Foundation Of Australia		0	14,950	0	0	0
Australian Cancer Research Foundation		600,000	600,000	0	0	0
Australian Nuclear Science & Technology Organisation		0	85,355	78,757	230,492	61,326
Australian Stem Cell Centre		306,219	161,691	159,780	467,335	770,065
Cancer Council South Australia		30,500	0	0	0	0
Clive and Vera Ramaciotti Foundation		0	0	0	60,000	30,000
Community Health + Tuberculosis Australia		0	0	49,000	0	0
CRC for Discovery of Genes for Common Human Diseases		0	0	0	0	0
CRC for Chronic Inflammatory Diseases		1,261,017	1,367,457	1,326,058	1,462,776	1,214,510
CRC for Pest Animal Control		0	0	122,210	0	47,952
Dairy Australia		338,779	203,765	167,644	700,321	333,084
Department Industry Science & Resources		0	0	0	200,000	135,000
Department of Primary Industries		0	0	0	50,000	0
Diabetes Australia Research Trust		0	0	45,000	0	50,008
Department of Industry Science and Technology		0	0	0	0	0
Human Frontiers Science Program		138,057	0	0	81,783	58,180
Glaxo Welcome Australia		0	0	0	0	0
Government Employees Medical Research Fund		0	0	0	0	0
Japanese Science & Technology Agency		0	0	0	0	106,462
The John Trivett Foundation		0	0	0	267,817	0
Juvenile Diabetes Foundation International		151,732	177,814	178,634	147,708	110,723
Mayne Bequest Foundation		0	0	0	0	0
The Merck Genome Research Institute		0	0	0	0	0
The Mazda Foundation		0	0	0	0	150,000
The Murdoch Institute		0	0	0	347,527	235,515
National Institute of Health (US)		1,475,684	1,132,358	1,176,642	969,415	561,829
National Health and Medical Research Council	2	6,438,350	9,819,880	7,888,967	11,054,142	12,445,955
National Heart Foundation		50,000	50,000	0	0	65,800
New Zealand Dept Science & Technology		0	0	0	81,392	40,738
Novartis		0	0	0	0	0
Post Graduate Scholarships		91,968	140,237	261,263	305,255	234,520
QIMR		0	0	0	0	0
Queensland Cancer Fund		140,000	215,100	148,700	312,000	554,000
Sylvia and Charles Viertel Charitable Foundation		0	0	0	0	0
Wellcome Trust		180,706	150,311	0	0	0
Commercial Income		1,473,905	1,856,012	2,018,054	4,880,234	4,585,955
Cross-institutional Contributions to Lief or Facilities		192,800	60,000	509,472	188,000	50,000
University of Newcastle (Re Arc Centre)		127,893	47,727	252,562	128,218	153,218
QBP Recoveries		312,979	316,211	386,092	371,257	363,065
Shared Grants		128,764	262,062	234,685	4,000	40,772
Conference Income		25,501	73,032	66,615	184,340	70,558
QBPstore		44,021	247,890	276,819	314,057	326,215
Wesley Research Institute		0	0	20,000	93,645	98,423
Miscellaneous Income		355,652	416,707	399,887	357,293	391,776
<b>TOTAL INCOME:</b>		<b>36,349,512</b>	<b>41,265,778</b>	<b>43,338,729</b>	<b>52,967,307</b>	<b>52,580,186</b>
Funds brought forward from previous year	3	6,746,999	6,557,150	9,050,612	11,441,270	15,641,004
<b>TOTAL FUNDS AVAILABLE</b>		<b>43,096,511</b>	<b>47,822,929</b>	<b>52,389,341</b>	<b>64,408,577</b>	<b>68,221,189</b>
<b>EXPENDITURE:</b>						
Salaries -Research		16,195,354	18,430,158	20,110,376	22,878,237	24,750,517
-Administration		1,243,375	1,343,782	1,205,466	1,349,056	1,345,709
-Infrastructure		2,131,608	2,383,622	2,673,620	2,368,795	2,862,623
Research Services		7,667,863	9,976,365	10,995,871	13,099,865	13,091,734
Education Programs	4	418,784	375,177	358,445	332,919	380,733
Administration	5	383,224	379,317	529,612	521,743	496,666
Corporate Services (UQ)	1	0	0	0	0	0
Infrastructure	6	1,772,942	1,287,442	1,295,139	1,862,212	2,160,052
Capital Equipment	7	5,521,066	3,389,715	2,569,801	5,156,825	3,438,525
IMBcom		1,205,144	1,206,738	1,209,741	1,197,920	1,198,528
<b>TOTAL EXPENDITURE:</b>		<b>36,539,360</b>	<b>38,772,316</b>	<b>40,948,071</b>	<b>48,767,573</b>	<b>49,725,426</b>
<b>Funds carried forward:</b>	<b>8</b>	<b>6,557,150</b>	<b>9,050,612</b>	<b>11,441,270</b>	<b>15,641,004</b>	<b>18,495,763</b>

## Explanatory Notes to Statement of Income and Expenditure

### 1/ A) IN-KIND CONTRIBUTIONS

Figure does not include the following salaries for affiliate appointments paid externally or by other departments:

	Location	Percentage
K. Burrage	University of Oxford	50
G. Mclachlan	UQ Mathematics	90
A. Mark	UQ SMMS	80

### B) GROSS INCOME & CORPORATE SERVICES CHARGE

The 2006 Annual Report, showed University of Queensland Operating Grant Income as a gross amount and Corporate Services charge shown separately under expenditure. Subsequent years have reverted to the previous method for better direct comparison. 2006 figures have been adjusted accordingly and now show the nett.

### 2/ FELLOWSHIP/PROJECTS FROM GOVERNMENT AGENCIES

Australian Research Council		
Projects		4,830,361
Fellowships		1,147,181
		<b>5,977,542</b>
National Health and Medical Research Council		
Projects		10,243,979
Fellowships		2,201,977
		<b>12,445,955</b>

### 3/ FUNDS CARRIED FORWARD TO 2008

University of Queensland Operating Grant	7,468,461
University of Queensland Research Grants	53,647
Post Graduate Scholarships	84,768
State Government	3,036,824
SRC Grant	-292,297
Fellowships (as approved by funding bodies)	541,148
Overseas Grants funded mid year	294,675
Contract Research	2,639,402
Project Grants (as approved by funding) bodies)	1,814,376
	<b>15,641,004</b>

### 4/ EDUCATION PROGRAMS

Postgraduate scholarships	303,623
Postgraduate recruitment and training	77,110
<b>Total Education Services</b>	<b>380,733</b>

# Of this, \$1.8m is the carry forward on IMB Group Leader core accounts & \$0.7m relates to outstanding 2008 equipment commitments. There is also a significant commitment regarding orders placed in 2008 whose payment has timeshifted into 2009 due to the introduction of a new financial system. This is also the reason for the significantly higher activity in 2008 through Stores.

### 5/ ADMINISTRATION

Annual Report	9,720
Marketing	48,954
Personnel Recruitment and Training	74,824
Visiting Scientists/Seminars	36,293
Fees	9,499
Quinquennial Review	-
Entertaining	50,555
Photocopying	114,879
Postage and Freight	7,247
Printing and stationery	38,454
Telephone	65,482
Travel Expenses	15,521
Board Fees	25,240
<b>Total Administration</b>	<b>496,666</b>

### 6/ INFRASTRUCTURE

Building Maintenance	189,656
Rental -Storage	8,085
Safety Equipment	55,824
Laundry	4,552
Minor Equipment & Furniture	28,752
Equipment Maintenance	307,481
Animals	281,366
Computer Services	577,507
Glass washing and replacement	50,344
Reticulated gases, RO water and dry ice	54,306
Cost Recovery	-140,623
Stores	742,802
<b>Total Infrastructure</b>	<b>2,160,052</b>

### 7/ CAPITAL EQUIPMENT

Scientific Equipment	2,655,867
Minor Equipment	782,658
<b>Total Capital Equipment</b>	<b>3,438,525</b>

### 8/ FUNDS CARRIED FORWARD TO 2009

University of Queensland Operating Grant	10,508,870#
University of Queensland Research Grants	27,742
Post Graduate Scholarships	53,427
State Government	1,972,027#
SRC Grant	-49,706
Fellowships (as approved by funding bodies)	41,002
Overseas Grants funded mid year	608,423
Contract Research	1,815,335
Project Grants (as approved by funding bodies)	3,518,644
	<b>18,495,763</b>

## GLOSSARY OF TERMS

**Ab initio** A calculation made from 'first principles', rather than experimental data.

**Actin** A protein, along with myosin, responsible for muscle contraction.

**Actin Nucleators** Proteins that increase the rate of growth of actin fibrils.

**Adipose** Fat or fatty tissue.

**Agonist** A molecule that interacts with a receptor, triggering a cellular response.

**Allele** One of a number of possible versions of a gene. Each person inherits two alleles per gene, one from each parent.

**Antagonist** A molecule that blocks a chemical from binding to its receptor.

**Anthelmintics** Anything that rids the body of parasitic intestinal worms.

**Antinociceptive** Counters the effect of anything caused by, or in response to, pain.

**Apoptosis** Programmed cell death.

**ARC** Australian Research Council.

**Assay** Qualitative or quantitative analyses of a substance performed in order to determine its components.

**Atherosclerosis** The process whereby arteries harden and narrow over time.

**Bioinformatics** The collection, organisation and analysis of large amounts of biological data using networks of computers and databases.

**Bilayer** Two layers of molecules.

**Bioactive** Has an effect on a living organism.

**Bioinformatics** The use of computational resources in the study of biological information.

**Biomimetic synthesis** An artificial process for synthesising chemicals that is inspired by biochemical processes.

**Bioscience** Any of the branches of science dealing with the structure and behaviour of living organisms.

**Biotechnology** Any technology that uses biological systems or living organisms to make or modify products or processes.

**BRET** Bioluminescence resonance energy transfer. A cell-based assay allowing the direct study of complex protein-protein interactions in living cells.

**BSE** Bovine spongiform encephalopathy. Commonly known as mad cow disease.

**Cadherin** A class of transmembrane protein, which ensure cells adhere to one another within a tissue.

**Caveolae** A small pocket extending from the outside to the inside of a cell. Sites of uptake and expulsion of materials into and out of the cell.

**Cephalopod** Organisms in the class Cephalopoda, which includes octopus and cuttlefish.

**Cerebellum** The part of the brain that coordinates voluntary movement.

**Chelate** An organic molecule that has bonded to a metal to form a ring-shaped structure.

**Chondrogenesis** The development of cartilage.

**Chromatin** The complex of DNA and proteins that form a chromosome.

**Chromatography** A method of separating chemical compounds into their base constituents by transporting the compound in liquid form through a porous substance. The different rates of absorbency of the constituents mean that as they pass through the substance they will separate.

**Clathrin** The protein that largely forms the vesicle responsible for transportation of proteins into and out of the cell.

**CNS** Central Nervous System

**Combinatorial Chemistry** Methods used to synthesise numerous, related chemical compounds.

**Conopeptide** Peptides found in the marine cone snail.

**Conotoxin** A group of toxic peptides isolated from the venom of the marine cone snail.

**Crystallography** The use of X-rays to determine the structure of crystallised molecules.

**Cytokines** Small proteins released by cells that affect the behaviour of other cells.

**Cytokinesis** The point in somatic cell division where the cytoplasm splits, as opposed to the splitting of the nucleus, which occurs first.

**Cytoplasm** All of the contents of a cell, excepting the nucleus.

**Cytoskeleton** The protein framework of a cell.

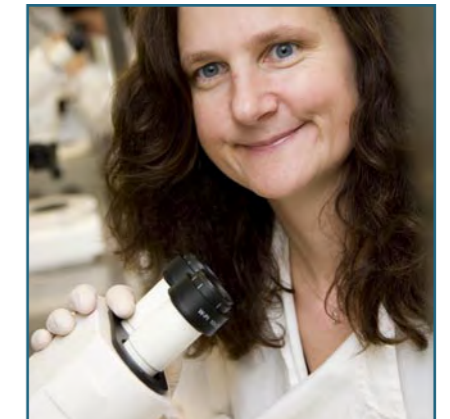
**Cytosol** The fluid component of cytoplasm, in which all other structures are suspended.

**Cytotoxin** A toxin harmful to cells.

**De novo** Not previously present.

**Dendrites** Branches of a neuron cell that receive nerve impulses from other neurons.

**Deterministic** Something that is predictable, not random, given known initial conditions. The opposite of stochastic.



**Diabetes** A disease that occurs when the body cannot produce or cannot use insulin, which regulates blood sugar levels.

**Differentiation** The process of specialisation from a general precursor cell into a cell with a specific role.

**Dimer** An organic molecule formed by combining two smaller molecules.

**DNA** Deoxyribonucleic acid. The chemical chain that carries the genetic instructions for making a living organism.

**Dyslipidemia** A disorder that occurs when there is an excess of lipids in the blood.

**Effector molecules** A molecule that alters the activity of a protein by binding to it.

**EGFR** Epidermal growth factor receptor.

**Electrolyte** The dissolved form of a mineral, capable of conducting an electrical current. Helps regulate the proper balance of body fluids.

**Electron tomography** A method of obtaining a 3D image using an electron microscope.

**Embryogenesis** The development of an embryo.

**Endocytosis** Uptake of material into a cell.

**Endosome** An organelle involved in protein trafficking.

**Enzyme** A protein produced by living organisms that catalyses chemical reactions of other substances without being altered itself by the reactions.

**Epidermis** The outer layer of skin.

**Epifluorescence** A type of microscopy using a very bright light source. This light is used to energise the sample into re-emitting light (or "fluorescing") at various wavelengths, which allows researchers to produce an image of the sample.

**Epigenetic** The changes in phenotype that occur without a corresponding change in genotype.

**Epithelium** Membranous cellular tissue that covers the internal and external surfaces of the body.

**Epitope** The site on the surface of a foreign substance that triggers the production of antibodies, and to which these antibodies bind.

**ERK** A messenger kinase belonging to the MAPK family.

**Erythropoiesis** The development of mature red blood cells.

**Eukaryotes** Organisms whose genetic material is enclosed in a membrane-bound nucleus. Includes all organisms except viruses and bacteria.

**Exocytosis** The discharge of material from the cell.

**FACS** Fluorescent-activated cell sorting. A method of sorting a heterogeneous group of cells using the light scattering and fluorescent characteristics of each cell.

**Factor** A sequence of DNA involved in producing a polypeptide chain.

**FRET** Fluorescence Resonance Energy Transfer. A method of quantifying molecular dynamics such as protein-protein interactions.

**Gene** Considered the basic unit of heredity, a gene is a region of DNA that encodes all of the information to make a protein.

**Genome** All DNA contained in an organism or cell.

**Genomics** The study of genes and their function.

**Glucose** A six-carbon sugar that is a major energy source for the body.

**GPCRs** G protein-coupled receptors, the largest family of membrane receptors.

**Gram-positive** Bacteria that have a single cell wall; many species are pathogenic.

**GTPase** A large family of enzymes that can bind and break down GTP, a type of nucleotide. GTPase is involved in a number of processes, including translation, transport, signal transduction and cell division.

**Haemoglobin** A protein in red blood cells that carries oxygen around the body.

**Heterodimer** An organic molecule formed by combining two smaller, different molecules.

**Heterogeneous** Comprised of more than one type of element.

**Histidine** A type of amino acid, which binds to form proteins. Histidine is found in proteins involved in the repair and growth of tissue.

**Homeodomain** A protein motif in a homeobox (a highly-conserved DNA sequence) found in genes that regulate embryo development.

**Homeostasis** A condition where the body uses negative feedback processes to maintain its systems at a constant equilibrium.

**Homology** Similarity due to common ancestry.

**Homozygous** Refers to a gene in which both copies of an allele are the same.

**Hyperplasia** The multiplication of cells beyond that which is normal.

**Icosahedron** A structure with twenty equal faces.

**Immunoprecipitation** The process whereby an antigen is formed in a solution using a specific antibody.

**In silico** A process that has been simulated on a computer.

**In situ** In its natural place.

**In vitro** A process occurring in an artificial environment that would normally occur in an organism.

**In vivo** A process occurring within an organism.

**Insulin** A hormone that regulates sugar concentration in the blood.

**Ion Channels** Proteins that act as gates in order to control the flow of ions across cellular membranes.

**Islet** Clusters of cells in the pancreas that secrete insulin.

**Isoprenoids** Naturally occurring organic molecules.

**Isothermal calorimetry** A technique of measuring the heat and heat capacity of chemical reactions; often used to characterise potential drug candidates.

**Keratinocyte** Cells that make keratin, a substance found in hair and nails (hard keratin) and skin (soft keratin).

**Kinase** An enzyme that catalyses the transfer of a phosphate group from a donor to a target molecule.

**Knockout** A technique in which specific genes are made inactive, so scientists can determine their effect.

**Ligand** A chemical that binds to a larger molecule/receptor.

**Lipid** Any of a group of heterogeneous fat or fat-like compounds that are insoluble in water.

**Locus** The location of a gene on a chromosome.

**Lymphatic** Pertaining to the circulatory network of vessels that produce and store the cells that fight infection.

**Lymphedema** A condition that occurs when excess lymph fluid collects in a localised area.

**Lysosome** An organelle capable of digesting microorganisms and cellular debris.

**Macrophage** A large cell that engulfs and absorbs waste material, harmful microbes or other foreign bodies in the bloodstream and tissues.

**Macropinocytosis** The formation of fluid-filled macropinosomes, large heterogeneous, dynamic vesicles.

**Mass spectrometry** A method of studying the structure and composition of molecules.

**Mechanosensitive channels** Proteins in the membrane that open and close in response to mechanical force.

**Meiosis** The process by which cells divide to produce eggs and sperm.

**Melanoblast** Precursor of a melanocyte.

**Melanocytes** Cells that produce melanin, the pigment that gives skin, hair and eyes their colour.

**Melanogenesis** The production of melanin.

**Membrane** A thin layer of tissue surrounding a cell and separating it from the rest of the environment.

**Mesoderm** The middle layer of cells in the early embryo.

**Metabolites** A chemical involved in or produced during metabolism.

**Metabolomic** Relating to all of the metabolites in a sample at any given time.

**Metastasis** Migration of cancer cells from their original site to other parts of the body.

**Microarray** A technique for studying how large numbers of genes interact and how a cell's regulatory network controls vast amount of genes simultaneously.

**Microtubules** Tiny tubes found in most cells.

**Mimetics** A molecule with similar effects to the molecule under consideration.

**MiRNA** MicroRNAs, RNA molecules around 20 nucleotides long that regulate gene expression.

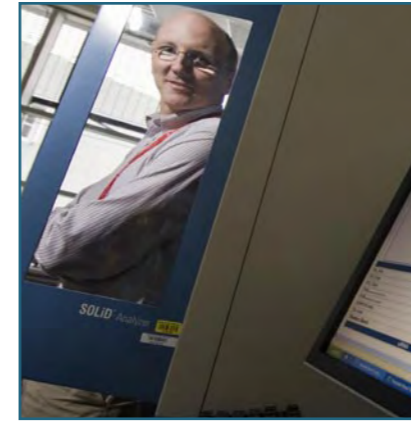
**Morphogenesis** The process where cells differentiate into different structures.

**Motif** A repeating element.

**mRNA** Messenger RNA. Contains the information on how to make a protein, and takes it from the genes in DNA to the site of protein synthesis.

**Mutagenesis** The process of intentionally creating mutations in an organism's DNA.

**Mutant** A gene or an organism that has experienced a mutation (a change in its genetic sequence).



**Myosin** A protein, along with actin, responsible for muscle contraction.

**Nanovesicles** Small, dense vesicles.

**Nephron** Tubes within the kidney that act as filters.

**Neuropathic** Pain from nerves themselves, as opposed to injured or diseased body parts.

**NHMRC** National Health and Medical Research Council.

**NMR** Nuclear Magnetic Resonance. A spectroscopic technique that analyses the disruptions to a high magnetic field to elucidate the chemical structure and molecular dynamics of a sample.

**Nucleic Acid** A molecule consisting of a chain of organic molecules that are sequenced with one another to create genetic information.

**Nucleotides** The subunits of DNA and RNA.

**Nucleus** A large, membrane-bound, usually spherical structure within a living cell, containing the cell's hereditary material and controlling its metabolism, growth and reproduction.

**Oncogenesis** The formation and growth of tumours.

**Oncoprotein** A protein involved in the formation and growth of tumours.

**Organelle** A discrete subcellular structure with a specialised function.

**Orthologous** Any gene found in more than one species that can be traced back to the same common ancestor.

**Osteoclast** A large, multinuclear cell involved with the absorption and removal of bone.

**Paralogous** Two genetic sequences that have the same evolutionary ancestor and arose through gene duplication.

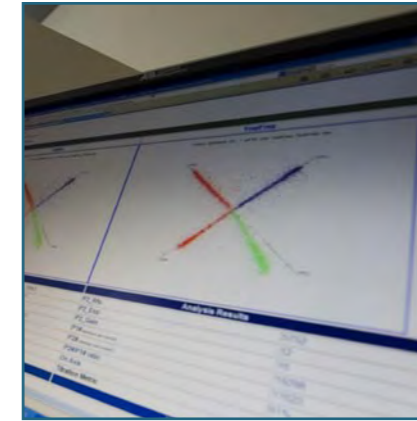
**Pathogen** A disease-causing organism.

**Pathophysiology** A change in function caused by a disease or condition.

**Peptide** A compound of two or more amino acids.

**Phage** A virus that infects bacteria.

**Phagocytosis** The process by which cells engulf material in order to destroy or digest it.



**Pharmacology** The study of drugs and their effect on organisms.

**Pharming** Farming genetically-modified animals and plants to produce drugs.

**Phenotype** The characteristics of an organism resulting from the interaction between its genotype and its environment.

**Phosphatase** An enzyme that removes a molecule containing phosphorous acid from a nucleic acid or protein.

**Phosphoregulators** All mouse protein kinase and phosphatase genes.

**Photosynthesis** The process through which plants convert energy from sunlight into chemical energy that acts as their fuel.

**PNMT** Phenylethanolamine N-methyltransferase. An enzyme that catalyses the production of adrenalin.

**Polymer** A large molecule consisting of repeated subunits.

**Polymorphism** The existence of multiple forms of a gene or DNA sequence.

**Prenylation** A process whereby hydrophobic molecules are added to a protein.

**Prostaglandin** Any of a group of compounds derived from fatty acids with a variety of actions and effects on cells.

**Protease** Any enzyme that causes the interior peptide bonds of a protein to split.

**Protein** A large molecule composed of one or more chains of amino acids in a specific order. Proteins are required for the structure, function and regulation of the body's cells, tissues and organs, and each protein has a unique function. Examples are hormones and antibodies.

**Proteome** The complete set of proteins being expressed at any one time by a cell, tissue or organism.

**Quantitative** An attribute that is clearly measurable.

**Radioligand** A radioactive substance injected into tissue that binds to receptors and allows researchers to study its behaviour.

**Redox** A reduction/oxidation reaction, where the oxidation number of an atom changes.

**Retromer complex** A protein complex that is involved in the transport of proteins to the Golgi.

**Retrotransposons** Segments of DNA that can move around the genome and amplify themselves.

**RNA** A chemical similar to a single strand of DNA, except that RNA contains ribose instead of deoxyribose and uracil instead of thymine. RNA delivers DNA's message to the site of protein synthesis.

**Scission** Splitting.

**Sequencing** Determining the order of nucleotides in a DNA or RNA strand.

**Somatic** Refers to any of the non-reproductive parts of the body, also used to mean a condition that is non-inherited.

**Spectroscopy** The study of the interaction between matter and radiation (eg. light).

**Stat5** A protein that regulates gene expression.

**Stochastic** A process that is governed by random chance.

**Teleosts** A class of bony vertebrate fish.

**Tomography** The process of creating a series of detailed pictures of areas inside the body, created by a computer linked to an X-ray machine.

**Transcription** The formation of RNA from a DNA template.

**Transcriptome** All of the messenger RNA transcribed from genes within a given genome.

**Transgenic** An organism that has a transferred gene (transgene) incorporated into the chromosome of all its cells.

**Triplex** Consisting of three parts.

**Tumorigenesis** The formation of a tumour.

**Upregulated** When the production of a substance, or the rate of a process, is increased.

**Vascular** Pertaining to anything related to or containing conductive vessels, eg. blood vessels.

**Vesicle** A closed membrane shell.

**Zinc finger** A DNA-binding protein domain in which the zinc ion is crucial.