

- Abandonment:** The surrender, relinquishment, disclaimer, or cession of property or rights.
- Accession** Coming into possession of a right or office, including the right to all that one's own property produces, whether that property be movable or immovable.
- Actionable:** Furnishing legal ground for a proceeding in a court of justice.
- Amino acid:** One of 20 molecules that are linked together in various combinations to form proteins. Each different protein is made up of a specific sequence of these molecules with the unique sequence coded for by DNA.
- Aneuploid:** An abnormal number—either an excess or deficiency—of chromosomes in a cell. See diploid.
- Antibody:** A protein molecule, also called immunoglobulin, produced by the immune system in response to exposure to a foreign substance. An antibody is characterized by a structure complementary to the foreign substance, the antigen, that provoked its formation and is thus capable of binding specifically to the foreign substance to neutralize it. See antigen and monoclonal antibodies.
- Antigen:** A molecule introduced into an organism and recognized as a foreign substance, resulting in the elicitation of an immune response (antibody production, lymphokine production, or both) directed specifically against that molecule. See antibody and monoclonal antibodies.
- Autoimmune disease:** A disease in which the body's defenses (its immune system) fail to distinguish the body's own tissue from foreign matter with the result that the body's own tissue is attacked and damaged.
- Autonomy:** Derived from the Greek "autos" (self) and "nomos" (rule, governance, or law), first used in reference to self-rule or self-governance in Greek city-states. In ethics, it is the principle that independent actions and choices of an individual should not be constrained by others.
- B lymphocyte:** A specialized white blood cell involved in the immune response of vertebrates that originates in the bone marrow and produces antibody molecules after challenge by an antigen. In hybridoma technology, these cells contribute antibody-producing capability to a hybridoma. See T lymphocyte.
- Beneficence** Mercy, kindness, or charity. In ethics, it is the principle that one has a duty to confer benefits or to help others further their legitimate interests.
- Cell:** The smallest component of life capable of carrying on all essential life processes. A single unit is a complex collection of molecules with many different activities all integrated to form a functional self-assembling, self-regulating, self-reproducing biological unit. See eukaryote and prokaryote.
- Cell culture** The propagation of cells removed from organisms in a laboratory environment that has strict sterility, temperature, and nutrient requirements; also used to refer to any particular individual sample. See cell and cell line.
- Cell line:** A sample of cells that has undergone the process of adaptation to artificial laboratory cultivation and is capable of sustaining continuous, long-term growth in culture. See cell and cell culture.
- Chattel:** An article of personal property, more comprehensive than "goods" because it includes animate as well as inanimate property.
- Chromosome:** The physical, threadlike structure within the nucleus of a cell composed of a DNA-protein complex and containing the hereditary material, i.e., genes. In bacteria, it is the DNA molecule—a single, closed circle (no associated protein)—comprising the cell's total genetic information.
- Cloning:** The process of asexually producing many copies of a biological material, all identical to the original ancestor. In tissue and cell culture technology, the process by which a culture is grown and amplified starting from a single cell; in recombinant DNA technology, the process of using a variety of recombinant DNA procedures to produce multiple copies of a single gene or segment of DNA.
- Common law:** Law created by judicial decisions, as distinguished from law created by the enactments of legislatures. In the United States, common law encompasses that portion of the common law of England (including such acts of parliament as were applicable) that had been adopted and was in force here at the time of the American Revolution.
- Conversion:** Any unauthorized interference in the right of ownership over goods or personal chattels belonging to another resulting in the alteration of their condition or the exclusion of the owner's rights; any unauthorized act that deprives an owner of his property permanently or for an indefinite period of time.
- Deoxyribonucleic acid:** See DNA.
- Diploid:** The state of having two complete sets of match-paired chromosomes—one set of paternal origin, the other of maternal origin—in all normal cells

- in higher organisms, except sex cells. In normal human cells, this number is 46. See aneuploid.
- Distributive justice:** Theories and principles for the fair allocation of resources in general and scarce resources in particular. See justice.
- DNA (deoxyribonucleic acid):** The molecule that is the repository of genetic information in all organisms (with the exception of a small number of viruses in which the hereditary material is ribonucleic acid—RNA). The information coded by DNA determines the structure and function of an organism.
- Enzyme:** A protein that acts as a catalyst, speeding the rate at which a biochemical reaction proceeds, but not altering its direction or nature.
- Equity:** Fairness and equality. In economics, the monetary value of a property, or of an interest in a property, in excess of claims or liens against it. In law, a body of law separate from common law that is designed to achieve a lawful result when legal procedure is inadequate.
- Eukaryote:** An organism with well-developed organelles and whose genetic material (DNA) is enclosed within membrane-bound, structurally discrete nuclei. Eukaryotes include all organisms except viruses, bacteria, and blue-green algae. See prokaryote.
- Exculpatory:** Clearing or tending to clear from alleged fault or guilt; excusing.
- Fiduciary:** Of or founded in confidence or trust; also a person having a duty to act in scrupulous good faith primarily for another's benefit.
- For-profit:** Referring to an organization primarily designed to pay dividends on invested capital; an institution organized to yield an excess of returns over expenditures. See nonprofit.
- Gene:** The fundamental unit of heredity; an ordered sequence of nucleotide base pairs which produce a specific product or have an assigned function.
- Gene probe:** A molecule of known structure or function, labeled with a tracer substance such as a dye or radioactive label, that is used to locate and identify a specific region or base sequence of DNA or RNA. In this report, a gene probe as an end product refers to a cloned DNA sequence.
- Host:** In recombinant DNA technology, the organism used for growth and reproduction of virus, plasmid, or other foreign DNA.
- Hybridization:** In cell culture, the formation of new cells as a result of the fusion of whole cells or cell parts of different parental origin. In recombinant DNA, a procedure in which single-stranded nucleic acid segments are allowed to bind to identical or nearly identical sequences, forming hybrid double-stranded helices.
- Hybridoma:** A new cell resulting from the fusion of a particular type of immortal tumor cell line, a myeloma, with an antibody-producing B lymphocyte. Cultures of such cells are capable of continuous growth and specific (i.e., monoclonal) antibody production.
- Imago dei:** From Latin, meaning in the image of God.
- Immunization:** The injection of an antigen into an organism resulting in an immune response that may include the production of antibodies.
- Immunoglobulin:** See antibody.
- In vitro:** Literally, '(in glass.)' Refers to a process, test, or procedure in which something is measured, observed, or produced outside a living organism after extraction from the organism. See *in vivo*.
- In vivo:** Literally, "in the living." Refers to a reaction that is being observed or investigated using an intact organism. See *in vitro*.
- Justice:** Generally refers to fair and equal treatment. In ethics, it is the principle that one should act in such a manner that no one person bears a disproportionate share of benefits or burdens. See distributive justice.
- Lymphocytes:** See B lymphocyte and T lymphocyte.
- Lymphokine:** A group of proteins that modulate the immune response and that are necessary for proper function of the entire immune system. Interferon and interleukin-2 are lymphokines.
- Microphage:** A large specialized cell that originates in the bone marrow and is involved in many stages of the immune response, including consumption of foreign particles such as viruses and lymphokine production.
- Market:** The available supply of or potential demand for specified goods or services.
- Monoclonal antibodies:** Identical antibodies that recognize a single, specific antigen and are produced by a clone of specialized cells. Commercial quantities of these molecules are now produced by hybridomas. See antibody, antigen, and hybridoma.
- Myeloma:** A malignant tumor of an antibody-producing cell. In hybridoma technology, some of these tumor cells have been adapted to cell culture, and these cells contribute immortality to a hybridoma cell line.
- Nonmaleficence:** Generally associated with the maxim "*primum non nocere*"—from Latin, meaning above all, do no harm. In ethics, it is the principle that one has a duty not to inflict evil, harm, or risk of harm.
- Nonprofit:** Referring to an organization primarily designed not to pay dividends on invested capital; an organization not conducted or maintained for the purpose of yielding an excess of returns over expenditures in a transaction or series of transactions. See for-profit.

- Nucleus:** The membrane-enclosed structure in eukaryotes that contains the chromosomes.
- Organelle:** A structure outside the nucleus of a cell that is specialized in its ultrastructure and biochemical composition to serve a particular function (e.g., mitochondria, endoplasmic reticulum, chloroplast).
- Pathogenic:** Able to cause disease; often used to express lethality.
- prokaryote:** An organism lacking organelles and in which the genetic material (DNA or RNA) is not enclosed within a membrane-bound, structurally discrete nucleus. Bacteria and blue-green algae are prokaryotes. See eukaryote.
- Protein:** A molecule composed of a few to hundreds of amino acids linked in a specific sequence determined by the sequence of a gene in the DNA. These molecules are required for the structure and function of all living organisms.
- Recombinant DNA:** A broad range of techniques involving the manipulation of the genetic material of organisms; often used synonymously with genetic engineering; also used to describe a DNA molecule constructed by genetic engineering techniques and composed of DNA from different individuals or species.
- Res nullius:** The property of no one. A thing which has no owner, either because a former owner has finally abandoned it, because it has never been appropriated by any person, or because it is not susceptible to private ownership.
- Restriction endonuclease:** An enzyme isolated from bacteria that selectively recognizes and clips double-stranded DNA at specific sequences. More than 400 different restriction enzymes are known to recognize over 100 different DNA sequences.
- Restriction enzyme:** See restriction endonuclease.
- Ribonucleic acid:** See RNA.
- RNA (ribonucleic acid):** A molecule existing in three forms—messenger RNA, transfer RNA, and ribosomal RNA—responsible for translating the genetic information encoded by an organism (i.e., DNA) into a protein product; the hereditary material of some viruses.
- somatic:** Pertaining to the cells of an organism except for those of the germ line (i.e., sex cells—sperm and eggs).
- Specification:** In law, relating to patents, machinery, and building contracts, a particular or detailed statement of the various elements involved.
- Statute:** A law enacted and established by the legislative branch of the government.
- T lymphocyte** Specialized white blood cell involved in the immune response of vertebrates that originates in the bone marrow, matures in the thymus gland, and produces some lymphokines. Subclasses of T lymphocytes are important to antibody production and the enhancement or suppression of an immune response. See B lymphocyte *and* microphage.
- Tissue culture:** See cell culture.
- Tort law:** Derived from legal principles governing wrongful acts, except those involving a breach of contract, committed against a person or property for which civil action will be valid.
- Transaction cost:** An outlay associated with carrying out a business deal.
- Undue influence:** Any improper constraint on a person particularly susceptible to persuasion which deprives the person being influenced from acting with free will.
- Uniform Commercial Code (UCC):** A model act, begun in 1942 by the American Law Institute and the National Conference of Commissioners, to replace most existing statutes relating to commercial transactions. Adopted in part or whole by every State.
- Vector:** A DNA molecule used to introduce foreign DNA into host cells.