

## GLOSSARY

- amniocentesis** the insertion of a hypodermic needle into the amniotic sac in order to withdraw fluid for analysis of the embryo's cells.
- asexual reproduction** reproduction which does not involve the union of sperm and egg cells.
- biofeedback** control of one's brain waves, especially the alpha waves, in order to maintain a state of deep relaxation. Often achieved with the help of a portable electroencephalograph that emits an audible signal when sufficient alpha waves are produced.
- CAM** abbreviation for cybernetic anthropomorphous machine, a machine which dramatically amplifies human movements.
- cerebral cortex** the convoluted layer of gray substance that covers each cerebral hemisphere.
- chromosomes** threadlike bodies found in the nucleus of every cell. They are the structural carriers of the genes, and hence heredity. Normal human beings have 36 chromosomes.
- cryonics** the preservation of bodies from decay by a freezing process.
- cross linkage (or cross linking)** a phenomenon which occurs when cells become clogged and bonded by giant molecules which cannot be broken down or eliminated. Possibly a contributory factor in aging.
- cloning** the asexual duplication of exact organisms from single body cells.
- cybernetics** the comparative study of human control functions and of mechanical and electric systems designed to replace them.
- cyborg** a human body or other organism whose functions are taken over in part by various electronic or electro-mechanical devices.
- DNA** deoxyribonucleic acid, the carrier of genetic information in the cells.
- Down's Syndrome** (see Mongolism)
- EEG (electroencephalograph)** an instrument for measuring and recording the electric activity of the brain.
- ESB—electrical stimulation of the brain** usually performed by implanting electrically charged needles (electrodes) into the brain.
- eugenics** the science of improving the qualities of a breed or species, especially the human race, by the careful selection of parents.
- genetic code** the biochemical code by which the four bases in the DNA molecule combine, usually in units of three, to specify the synthesis of particular amino acids and proteins that determine the hereditary characteristics of an organism.

**gene** a unit of heredity transmitted in the chromosome that, partially through interaction with other genes, controls the development of hereditary character.

**genetic engineering** the scientific alteration of genes or genetic material to produce desirable new traits in organisms, or to eliminate undesirable ones.

**genetic load** the accumulated mutations in the gene pool of a species.

**gerontology** the branch of science that deals with aging and the special problems of aging people.

**hemi-corporectomy** surgical removal of the lower part of the body.

**hibernation** a practice—which occurs in many species of mammals, in some birds, and even certain reptiles—of spending part of the cold season in a more or less dormant state, apparently as protection from cold when a normal body temperature cannot be maintained and food is scarce.

**Huntington's Chorea** a chronic disease of the nervous system characterized by jerky, involuntary movements, chiefly of the face and extremities.

**implant** a tissue, medication or mechanical device placed in a living organism.

**in utero** Latin. literally, in the uterus

**in vitro** Latin. literally, in glass. Often used in connection with *in vitro* fertilization, the union of sex cells outside the womb, in glass containers.

**karyotype** the chromosomal composition of a cell. Photographs of the chromosomal make-up are often called karyotypes.

**lobotomy** the cutting into or across a lobe of the brain, usually the cerebrum, to alter brain functions, especially in the treatment of mental disorders.

**lymphatic system** the system of body vessels which carries lymph, a yellowish fluid containing white blood cells. Is a plasma-like liquid which is derived from the body tissues and conveyed to the blood stream.

**Marfan's Syndrome** congenital anomalies of the heart occurring with multiple body deformities.

**metabolic rate** the speed at which the physical and chemical processes an organism are taking place.

**Mongolism** the abnormal condition of a child born with a wide, flattened skull, narrow, slanting eyes, and generally a mental deficiency.

**myo-electric** using electric currents produced by muscular contraction to actuate the movement of an artificial limb, such as an arm or a hand.

**natural selection** a process in nature resulting in the survival and perpetuation of only those forms of plant and animal life having certain favorable characteristics that best enable them to adapt to a specific environment.



**pacemaker** an instrument implanted beneath the skin for providing a normal heartbeat by electrical stimulation of the heart muscle. Used in certain heart conditions.

**parthenogenesis** the development of an egg without fertilization.

**PKU** abbreviation of *phenylketonuria*, an inherited condition in which the body cannot metabolize the amino acid phenylalanine, resulting in brain damage and mental retardation in infancy.

**placenta** the organ in most mammals, formed in the lining of the uterus, that provides for the nourishment of the fetus and the elimination of its waste products.

**primordial seas** the mixture of chemicals which gave rise to life on earth.

**progeria** premature old age; a disease marked by small stature, absence of facial and pubic hair, wrinkled skin, gray hair, and the facial appearance, attitude and manner of old age.

**prosthesis** the addition of an artificial part to supply a defect of the body.

**psychochemicals** chemical agents which act on the mind, affecting or altering the mental state.

**psychosurgery** treatment of mental diseases by means of brain surgery.

**quickening** the stage in pregnancy in which the child first gives indications of life.

**regeneration** the restoration or new growth by an organism of organs or tissues that have been lost, removed or injured.

**rejection** the immunological tendency of the body to attack and destroy transplanted organs and other foreign tissue.

**socialization** period in a child's development in which he learns to mingle and get along with others.

**somatic mutation** a physiological process in which body cells miscopy, continuously reproducing the same mistake.

**surrogate** something used as a substitute for another.

**transplant** to transfer an organ or a portion of tissue from one part of the body to another or from one person or animal to another.

**viable** (of a fetus) sufficiently developed so as to be capable of living outside the uterus.

**virus** an infectious agent, especially any group of ultramicroscopic, infectious agents which reproduce only in living cells.

**genetic code** the biochemical code by which the four bases in the DNA molecule combine, usually in units of three, to specify the synthesis of particular amino acids and proteins that determine the hereditary characteristics of an organism.