

## E

**Endocrine active substance (EAS):** A substance that can interact or interfere with the endocrine system.

**Endocrine disrupter (ED):** An exogenous substance or mixture that alters function(s) of the endocrine system and consequently causes adverse health effects in an intact organism or its progeny or (sub)populations.

**Endocrine modulator (synonym - endocrine disruptor):** A chemical, which can be naturally occurring or man-made, that causes adverse health effects in an organism, as a result of changes in hormonal function.

**Endonuclease:** An enzyme that cleaves its nucleic acid substrate at internal sites in the nucleotide sequence.

**Enterohepatic circulation:** Cyclical process involving intestinal re-absorption of a substance that has been excreted through bile followed by transfer back to the liver, making it available for biliary excretion again.

**Epidemiology:** Study of the distribution and the aetiology of disease in humans.

**Epigenetics:** The study of heritable changes in gene function that occur without a change in the sequence of nuclear DNA and the processes involved in the unfolding development of an organism.

**Epigenetic age:** An estimate of biological age based on changes in epigenetic marks at particular locations along the genome.

**Epigenetic drift:** Divergence of the epigenome as a function of age due to stochastic changes in epigenetic marks.

**Epigenetic marks:** Features not directly governed by the genetic code, which include methylation of DNA and covalent modification of histone proteins. The latter may be tagged with methyl, acetyl, ubiquitin, phosphate, poly(ADP)ribose and other biochemical groups. These groups and their particular pattern of protein modification (e.g. mono-, bi-, tri-methylated at different amino acids and combinations of amino acids) modify the function of the tagged proteins and

influence the way genes are expressed.

**Epigenome:** The comprehensive collection of genome-wide epigenetic phenomena, including DNA-methylation patterns, chromatin modifications, and non-coding RNA.

**Epigenomic reprogramming:** Resetting epigenetic marks so they resemble those of other cells from earlier developmental stages. This is of particular relevance for germline cells after the fusion of gametes when the genome is brought back into a "zero-state" of gene expression.

**Epithelium:** The tissue covering the outer surface of the body, the mucous membranes and cavities of the body.

**Erythema:** Reddening of the skin due to congestion of blood or increased blood flow in the skin.

**Erythrocyte:** Red blood cell.

**Estrogen:** Sex hormone or other substance capable of developing and maintaining female characteristics of the body.

**Exogenous:** Arising outside the body.

**Exposure Assessment:** Process of measuring or estimating concentration or intensity, duration and frequency of exposure to an agent. The exposure could be via the environment, consumer products or the diet, or due to occupation.