Glossary for LLL Presentations

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***Marijuana Talk***

**Cannabis Sativa** - is an annual marijuana herbaceous plant in the [*Cannabis*](https://en.wikipedia.org/wiki/Cannabis) genus, a species of the [Cannabaceae](https://en.wikipedia.org/wiki/Cannabaceae) family.

**Cannabis Indica** - is an annual marijuana plant in the [Cannabaceae](https://en.wikipedia.org/wiki/Cannabaceae) family.

**Hemp** - is a commonly used term for high-growing industrial varieties of the [*Cannabis*](https://en.wikipedia.org/wiki/Cannabis) plant and its products, which include fiber, oil, and seed.

**Tricombs** - fine outgrowths or appendages on plants, algae, lichens, and certain protists. In marijuana plant, the tricombs house high amounts of THC.

**Hashish** - is an extracted product composed of compressed or purified preparations of stalked resin glands, called tricomes, from the cannabis plant.

**Dronabinaol** - is a man-made compound that contains cannabinoids found in the [marijuana](http://www.medicinenet.com/marijuana/article.htm) plant (*Cannabis sativa L*).

**Sativex** - is a cannabinoid medicine for the treatment of spasticity due to multiple sclerosis.

**Cannabinoid** - a class of diverse [chemical compounds](https://en.wikipedia.org/wiki/Chemical_compounds) that act on [cannabinoid receptors](https://en.wikipedia.org/wiki/Cannabinoid_receptor) in cells that repress [neurotransmitter release](https://en.wikipedia.org/wiki/Neurotransmitter_release) in the brain.

**Cannabidiol** - one of at least 85 active [cannabinoids](https://en.wikipedia.org/wiki/Cannabinoid) identified in [cannabis](https://en.wikipedia.org/wiki/Cannabis).

**Tetrahydrocannabinol** - is the principal [psychoactive](https://en.wikipedia.org/wiki/Psychoactive_drug) constituent (or [cannabinoid](https://en.wikipedia.org/wiki/Cannabinoid)) of [cannabis](https://en.wikipedia.org/wiki/Cannabis_%28drug%29).

**THCA -** non-psychoactive cannabinoid found in raw and live cannabis.

**CBDA –** cannabinoid found in raw and live cannabis that decarboxylates when heated.

**Endocannabinoid System –** a recently discovered communications system in the human body found in the brain and body that helps create homeostasis.

**Receptor -** is a protein molecule that receives chemical signals from outside the cell.

**Endocannabinoids -** chemical compounds that activate receptors affecting the endocannbinoid system. They activate the same receptors as as delta-9-tetrahydrocannabinol (THC), the active component of marijuana.

**Ligands –** are ions or neutral molecules that bond to a central metal atom or ion.

**Anandamide (AEA) –** an endogenous cannabinoid known as the bliss hormone.

**2-arachidonoyl glycerol (2-AG) -** an endogenous cannabinoid.

**Epigenetic Methylation –** a process when a methyl group is added to DNA which can change gene expression.

**Neuronal Generation –** the process by which neuron are generated from neural stem cells and progenitor cell in the brain.

**Neuronal Differentiation –** the final stage of maturation of a neuron when they travel to their final location and make specific connections in the brain.

**Neuronal Migration –** the method by which neurons travel from their origin or birthplace to their final position in the brain.

**Amygdala –** two almond shaped nuclei in the brain that are integral to memory, emotions, and decision making.

**Hippocampus-** a part f the brain in the limbic system that plays a large role in memory.

**Synaptogenesis -** the formation of synapses between neurons in the nervous system.

**EC Signaling –** (endothelial cell signaling) communication between cells that governs basic cellular activities and coordinates cell actions.

**Pyramidal Neurons –** type of neuron found in areas of the brain including the cerebral cortex, the hippocampus, and the amygdala.

**Corticothalamic and Thalamocortical Axons -** the long threadlike nerve cells along which impulses are conducted from the cell body to other cells.

**Gene Expression -** the appearance in a phenotype of a characteristic or effect attributed to a particular gene.

**Superior Cervical Ganglion –** part of the autonomic nervous system ( ANS) responsible for maintaining homeostasis of the body.

**Cytoskeletal Dynamics –** how the cytoskeleton of a cell maintains cellular organization by linking together many cellular components.

**Lipophilic -** tending to combine with or dissolve in lipids or fats.

**Corpus Callosum -** a bundle of nerve tissue that divides the right and left hemisphere of the brain that allows communication between the two hemispheres.

**Gonadotrophin** - hormones that are central to the complex [endocrine system](https://en.wikipedia.org/wiki/Endocrine_system) that regulates normal [growth](https://en.wikipedia.org/wiki/Cell_growth), [sexual development](https://en.wikipedia.org/wiki/Sexual_development), and [reproductive function](https://en.wikipedia.org/wiki/Reproduction).

**Prolactin** – the hormone that stimulates breastmilk development

**Growth Hormone** - is a [peptide hormone](https://en.wikipedia.org/wiki/Peptide_hormone) that stimulates growth, [cell](https://en.wikipedia.org/wiki/Cell_%28biology%29) reproduction, and cell regeneration in humans and other animals.

**Thyroid Stimulating Hormone** - a [pituitary hormone](https://en.wikipedia.org/wiki/Pituitary_hormone) that stimulates the [thyroid](https://en.wikipedia.org/wiki/Thyroid) gland to produce [thyroxine](https://en.wikipedia.org/wiki/Thyroxine) (T4), and then [triiodothyronine](https://en.wikipedia.org/wiki/Triiodothyronine) (T3) which stimulates the metabolism of almost every tissue in the body.

***Epigenome Talk***

**DNA –** the genetic biological instructions that make each species unique.

**Gene -** a unit of heredity that is transferred from a parent to offspring and is held to determine some characteristic of the offspring.

**Epigenome -** the chemical compounds that influence gene expression that can be influenced by the environment

**DNA Methylation -** a process when a methyl group is added to DNA which can change gene expression

**Histone Modification –** changes in the epigenome that affect gene expression by altering chromatin structure or recruiting histone modifiers.

**mRNA -** is a large family of RNA molecules that convey genetic information from DNA to the ribosome, where they specify the amino acid sequence of the protein products of gene expression.

**miRNA –** a micro RNA which functions in RNA silencing and post-transcriptional regulation of gene expression.

**Nucleotides –** one of the structural components, or building blocks, of DNA and RNA.

**Chromatin -** a complex of DNA and proteins that forms chromosomes.

**Deacetylation -** the removal of a acetyl group.

**Acetylation -** the process of introducing an acetyl group.

**Microflora** - the community of microorganisms, including algae, fungi, and bacteria that live in or on another living organism or in a particular habitat.

**HPA Axis** – (Hypothalamic, Pituitary, Adrenal) is a complex set of direct influences and [feedback](https://en.wikipedia.org/wiki/Feedback) interactions among three [endocrine glands](https://en.wikipedia.org/wiki/Endocrine_gland): the [hypothalamus](https://en.wikipedia.org/wiki/Hypothalamus), the [pituitary gland](https://en.wikipedia.org/wiki/Pituitary_gland) (a pea-shaped structure located below the hypothalamus), and the [adrenal](https://en.wikipedia.org/wiki/Adrenal) (also called "suprarenal") glands (small, conical organs on top of the kidneys).

**Glucocorticoid Receptor Expression -** the receptor to which cortisol and other glucocorticoids bind. The GR is expressed in almost every cell in the body and regulates genes controlling the development, metabolism, and immune response.