

## Preliminaries Concepts of Neurogenesis in Adults: A Detailed Perception

Elliot J. Roth\*

Department of Physical Medicine and Rehabilitation, Northwestern University Medical School, Chicago, USA

### DESCRIPTION

Neurogenesis in adults is one of the hottest areas of research topics among the researchers of neuroscience. It is the process of formation of neurons in brain. At the time of neurogenesis, the neural stem cells will become any specialized type of cell at a varied time and region. These specialized cells are often called as progenitor cells.

These progenitor cells have the ability to cluster themselves into a specific neuron type. Scientists believed that brain is incapable of regulating and facing the neurogenesis. In 1990s, stem cells were discovered in some parts of the adult brain. Later, neurogenesis is considered as the normal procedure that occurs in human brain. A slight damage to brain can cause neurogenesis. It occurs mainly at two regions: (a) Hippocampus of brain and (b) Olfactory bulb. Some research evident that alcohol may develop neurogenesis. However, excess alcohol may results in negative effects.

Antidepressant properties, mental stimulation as well as physical activities have positive effects over neurogenesis. Some characteristics such as mental stress, anxiety reduce neurogenesis. Some studies revealed that consumption of some drugs such as heroine, nicotine etc. suppresses neurogenesis.

However, a few analysts describe that a significant drop in neurogenesis will happen if the brain of human ages whilst some other researchers described that old age happens due to neurogenesis in human hippocampus's dentate gyrus. A more clear comprehension of the proof encompassing the idea of grown-up human neurogenesis is significant on the grounds that its essence or nonappearance can influence the establishments on which our ideas of the instruments of learning and memory are fabricated, especially concerning maturing, and the pathogenesis and the board of numerous neuropsychiatric issues. On the off chance that neurogenesis in the grown-up hippocampus is absent, at that point different ideas of neuroplasticity, for example, changes in synaptic transmission or rebuilding of existing neurons, may move to the front line of hypothesis regarding cerebrum action and brokenness. In this article, a general overview of neurogenesis in adult has been described.

In the year 2002, Gage has described a preliminary perception about neurogenesis in adult brain [1]. The author has covered the limitations of reason behind the occurrence of neurogenesis in adult etc. Many literatures have been covered related to neurogenesis and its abilities in adult by covering the fundamentals and key principles. Sahay and Rene have explained adult neurogenesis in depression in the year 2007.

The authors have mainly focused on the hippocampus neurogenesis and on how the neurogenesis results in depression. They have covered evident of antidepressant action and explained that more focus should be done on how the neuron's granule count discusses antidepressant properties as there is eminent technology for studying the relationship of network activity and gyrus neurogenesis. In the year 2019, Synder has described the neurogenesis rate of species [3].

The author has explained the functional characteristics as well as severe situations of newly born neurons in adults. Later, how a perception on how neurogenesis is related with animals has also been explained.

The author has concluded that lower neurogenesis rate results in long term health of human. In the year 2020, Flor-Garcia et al. have developed a novel approach for unrevealing the neurogenesis in adult [4]. The authors have considered some parameters to explain neurogenesis. Experimental setups such as water bath, tissue sectioning etc. have been considered. Post-mortem human brain samples are considered as data samples for experimentation. Reliable results have been obtained by means of immunohistochemistry.

Moreover, several advancements are being developed day-by-day related to neurogenesis. There is a need to focus on limitations of neurogenesis such as timing etc. Research that covers limitations of neurogenesis is more required in future for resolving problems of neurogenesis.

### REFERENCES

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**Correspondence to:** Elliot J. Roth, Department of Physical Medicine and Rehabilitation, Northwestern University Medical School, Chicago, USA, E-mail: rojthej@gmail.com

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