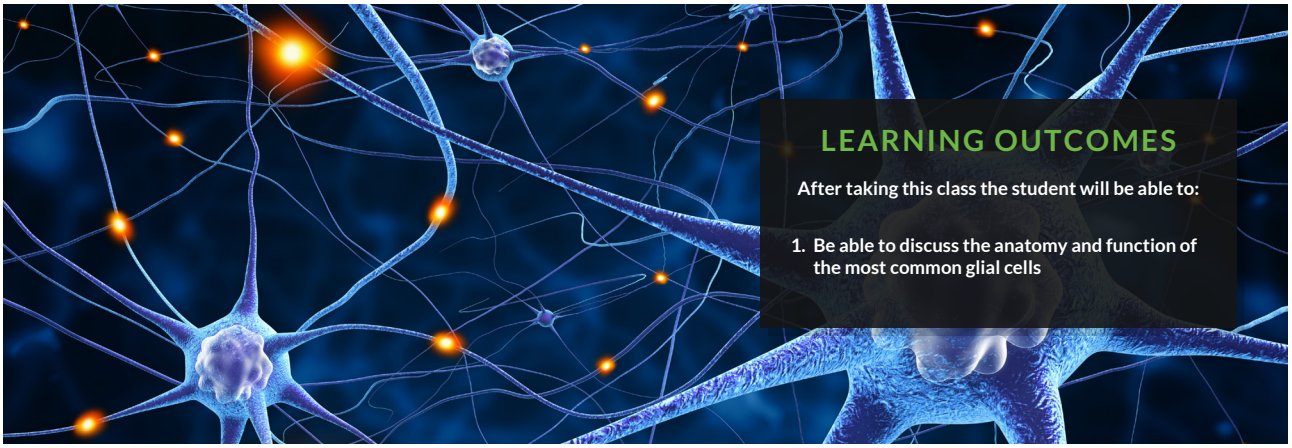
Neurobiology of Glial Cells

This class covers the basics of the second type of cells found in the nervous system, namely glial cells. There are several different key types of glial cells, and you will learn about the most common types. In particular, you will learn about oligodendrocytes, microglia, satellite cells, ependymal cells, astrocytes, Schwann cells, and enteric glial cells

A lot of new information has been discovered about glial cells in the past few decades demonstrating that they are far more important than we use to believe. This is a fascinating class to give you some insight into these long-neglected cells within the nervous system.

NEUROSCIENCE LEVEL 1 - CLASS 2



LESSON CONTENT

Every lesson has a practice quiz. At at the end of the lessons there is a final quiz and if you pass the final quiz, you will receive a certificate of completion.

1. Introduction to Glial Cells

- In this lesson, we look at glial cells and their many and varied functions within the nervous system.
- You will learn about the key types of glial cells, such as oligodendrocytes, microglia, ependymal cells, enteric glia, astrocytes, and Schwann cells.
- Each of them lives and function in a particular part of the body.

2. Myelin Sheath

- In this lesson, you will learn about myelin in the insulation found around axons of nerve cells.
- This myelin is created by glial cells.
- In the central nervous system, it is created by oligodendrocytes and in the peripheral nervous system is it made by Schwann cells.

3. The various other glial cells

- In this lesson, we look at several other types of glial cells.
- You will learn about astrocytes and ependymal cell, and will also learn about microglia, enteric glia, and satellite glial cells.

4. Glial cells influence inflammation and mood

- In this lesson, we will look at the ways that glial cells influence the microbiome and gut-brain barrier.
- You will also learn about how glial cells can influence your mood and ability to sleep, and will find out about how glial cells influence inflammation levels in the body.

5. Glial cells and Neuroplasticity

- In this lesson, you will learn about how glial cells influence and drive neural plasticity within the nervous system.
- You will learn how this influences neurological and neurodevelopmental disorders, and how this process is involved in many chronic diseases and disorder as well as chronic pain.

SUBJECT TAGS

Glial cell, oligodendrocyte, Schwann cell, astrocyte, ependymal cell, microglia, satellite cell, enteric glia, myelin, nodes of Ranvier, neuroplasticity, gut-brain axis, inflammation, chronic disease, satellite glial cells

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