

Stem Cell Based Therapy For Neurodegenerative Diseases: Advances In Experimental

Neurodegenerative diseases are a group of debilitating conditions that affect the nervous system. They include Alzheimer's disease, Parkinson's disease, and amyotrophic lateral sclerosis (ALS). Neurodegenerative diseases are characterized by the progressive loss of neurons, which leads to a decline in cognitive and motor function.

There is currently no cure for neurodegenerative diseases, but stem cell therapy is a promising new approach to treatment. Stem cells are unspecialized cells that have the potential to develop into any type of cell in the body. This makes them a potential source of new neurons to replace those that have been lost to disease.

There are two main types of stem cells that are used in therapy for neurodegenerative diseases:



Stem Cell-based Therapy for Neurodegenerative Diseases (Advances in Experimental Medicine and Biology Book 1266)

★★★★★ 5 out of 5

Language : English
File size : 16806 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 345 pages



- **Embryonic stem cells** are derived from human embryos. They are pluripotent, meaning that they have the potential to develop into any type of cell in the body.
- **Adult stem cells** are derived from adult tissues. They are multipotent, meaning that they have the potential to develop into a limited number of cell types.

There are a number of clinical trials currently underway to investigate the use of stem cell therapy for neurodegenerative diseases. These trials are testing the safety and efficacy of different types of stem cells, as well as different methods of delivery.

Some of the most promising clinical trials are using stem cells to treat Parkinson's disease. In one study, patients who received stem cell therapy experienced a significant improvement in their motor function. Another study found that stem cell therapy was able to slow the progression of the disease.

There are still a number of challenges that need to be overcome before stem cell therapy can become a standard treatment for neurodegenerative diseases. These challenges include:

- **The risk of rejection.** Stem cells are foreign cells, so there is a risk that the body will reject them.
- **The potential for tumors.** Stem cells have the potential to form tumors, so it is important to ensure that they are safe for use in

therapy.

- **The cost of treatment.** Stem cell therapy is a complex and expensive procedure.

Stem cell therapy is a promising new approach to treating neurodegenerative diseases. However, there are still a number of challenges that need to be overcome before it can become a standard treatment.

This book provides a comprehensive overview of the latest advances in stem cell therapy for neurodegenerative diseases. It covers the basics of stem cell biology, the different types of stem cells used in therapy, the current clinical trials underway, and the challenges that need to be overcome.

This book is an essential resource for anyone who is interested in learning more about stem cell therapy for neurodegenerative diseases.



Stem Cell-based Therapy for Neurodegenerative Diseases (Advances in Experimental Medicine and Biology Book 1266)

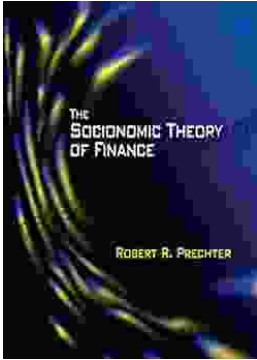
★★★★★ 5 out of 5

Language : English
File size : 16806 KB
Text-to-Speech : Enabled
Screen Reader : Supported
Enhanced typesetting : Enabled
Print length : 345 pages

FREE

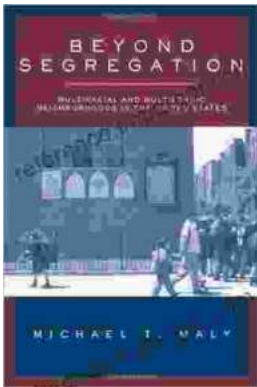
DOWNLOAD E-BOOK





Unlock Your Financial Future: Discover the Transformative Power of The Socionomic Theory of Finance

In a tumultuous and ever-evolving financial landscape, understanding the underlying forces that drive market behavior is paramount. The Socionomic Theory of Finance (STF)...



Beyond Segregation: Multiracial and Multiethnic Neighborhoods

The United States has a long history of segregation, with deep-rooted patterns of racial and ethnic separation in housing and neighborhoods. However, in recent...