

Χαρακτηριστικά:

- Presents the steps involved in the generation of brain organoids from iPSCs onwards
- Summarizes the importance of organoids in understanding various neurodevelopmental disorders
- Reviews the ongoing clinical trials using brain organoids
- Discusses ethical considerations when conducting organoid research

Περιεχόμενα:

Section I An overview about Organoids

1. An overview on organoids - Past, present and future scenario of organoids

Section II Neurodevelopmental disorder

2. A brief introduction about neurodevelopmental disorders
3. Use of brain organoids for autism
4. Role of brain organoids in Rett Syndrome
5. Brain organoids in bipolar disorder: Unraveling mechanisms and therapeutic approaches
6. Ongoing clinical trials on use of brain organoids for neurodevelopmental disorders

Section III Neurodegenerative diseases

7. An overview of neurodegenerative diseases
8. Use of brain organoids for Parkinson's disease and Alzheimer's disease
9. Application of brain organoids in Huntington's disease
10. Ongoing clinical trials on use of brain organoids for neurodegenerative diseases (Alzheimer's disease, Parkinson's disease, Huntington's disease, etc.)

Section IV Methods involved in organoids development

11. How human-induced pluripotent stem cells are derived into organoids
12. Elements required and days involved in organoid generation

Section V – Application and advancement of Brain organoids

13. Brain organoids – Challenges while constructing organoids
14. Existing drug targeting and research using brain organoids

Section VI - Ethical consideration while conducting organoids research

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Section VII - Future perspective and concluding remarks

16. Future directions and conclusion