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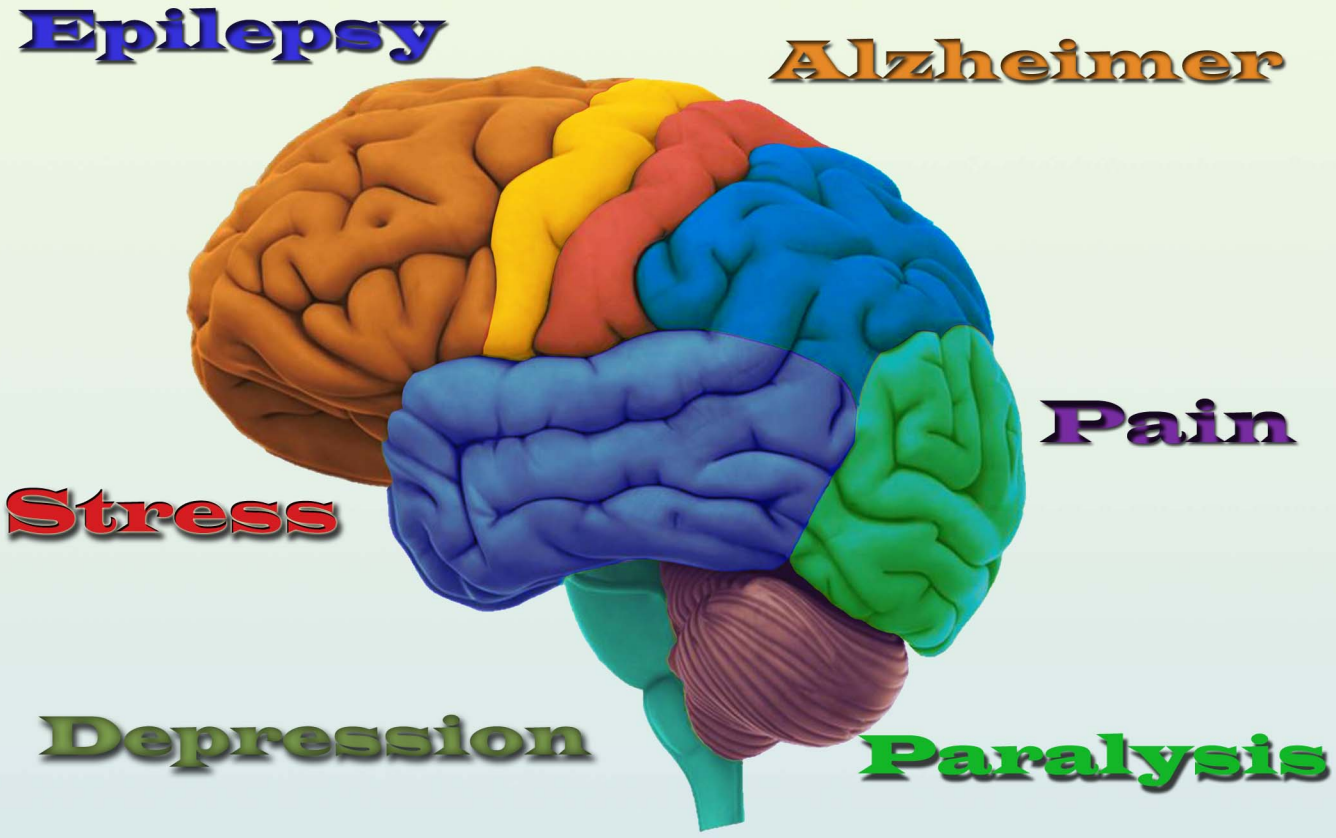

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Journal of Cellular Neuroscience and Oxidative Stress

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AIM AND SCOPES
Journal of Cellular Neuroscience and Oxidative Stress is an online journal that publishes original research articles, reviews and short reviews on the molecular basis of biophysical, physiological and pharmacological processes that regulate cellular function, and the control or alteration of these processes by the action of receptors, neurotransmitters, second messengers, cation, anions, drugs or disease.

Areas of particular interest are four topics. They are;

A- Ion Channels (Na^+- K^+ Channels, Cl^- channels, Ca^{2+} channels, ADP-Ribose and metabolism of NAD^+, Patch-Clamp applications)

B- Oxidative Stress (Antioxidant vitamins, antioxidant enzymes, metabolism of nitric oxide, oxidative stress, biophysics, biochemistry and physiology of free oxygen radicals)

C- Interaction Between Oxidative Stress and Ion Channels in Neuroscience
(Effects of the oxidative stress on the activation of the voltage sensitive cation channels, effect of ADP-Ribose and NAD^+ on activation of the cation channels which are sensitive to voltage, effect of the oxidative stress on activation of the TRP channels in neurodegenerative diseases such Parkinson's and Alzheimer's diseases)

D- Gene and Oxidative Stress
(Gene abnormalities. Interaction between gene and free radicals. Gene anomalies and iron. Role of radiation and cancer on gene polymorphism)

READERSHIP

Biophysics	Biochemistry
Biology	Biomedical Engineering
Pharmacology	PhysiologyGenetics
Cardiology	Neurology
Oncology	Psychiatry
Neuroscience	Neuropharmacology

Keywords
Ion channels, cell biochemistry, biophysics, calcium signaling, cellular function, cellular physiology, metabolism, apoptosis, lipid peroxidation, nitric oxide, ageing, antioxidants, neuropathy, traumatic brain injury, pain, spinal cord injury, Alzheimer's Disease, Parkinson's Disease.

4th International Brain Research School

Abstract Book

of

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Isparta, Turkey

with collaboration of

BSN Health Analyses, Innovation, Consultancy, Organization, Industry and Trade Limited Company

& Neuroscience Research Center, Süleyman Demirel University

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Oral Presentations

Oral Presentations

Oral Presentation 5

Experimental traumatic brain injury models in rodents

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Several accidents such as sport and traffic may induce head trauma for inducing mild traumatic brain injuries. Then the mild traumatic brain injuries result in primary and secondary brain injuries for resulting neurodegenerative disorders. Investigation of the traumatic brain injuries in the subject are difficult due to ethical restrictions. In addition, results of postmortem analyses of mild traumatic brain injuries are not valuable for clarifying the etiology of the mild traumatic brain injuries. Therefore, the animal models have great importance for the clarifying etiology of the mild traumatic brain injuries. Today, there are several animal models of mild traumatic brain injuries such as models of Marmarou, Feeney and Maryland (Marmarou et al. 1994; Hiskens et al. 2019). However, they are severe and acute models instead of the mild traumatic brain injuries. Recently, Dr. Mehmet Bilgen from USA discovered a valuable mechanical technique for the injuries (Bilgen, 2005). This presentation, I aimed to examine the literature for variables included in these animal models. Present data on the experimental traumatic brain injury suggested that appropriate animal models can assist in understanding the pathophysiological outcomes of patients with traumatic brain injury. The animal models could be used for discovering new therapies in the treatment of traumatic brain injuries.

Keywords; Traumatic brain injury; Neurodegenerative diseases; Marmarou' model; Experimental Animals.

References

Hiskens MI, Angoa-Pérez M, Schneiders AG, Vella RK, Fenning AS. 2019. Modeling sports-related mild traumatic brain injury in animals-A systematic review. J Neurosci Res. doi: 10.1002/jnr.24472. [Epub ahead of print].

Marmarou A, Foda MA, Brink WVB, Campbell J, Kita H, Demetriadou K. 1994. A new model of diffuse brain injury in rats. J Neurosurg 80:291-300.

Bilgen M. 2005. A new device for experimental modeling of central nervous system injuries. Neurorehabil Neural Repair. 19(3):219-126.