

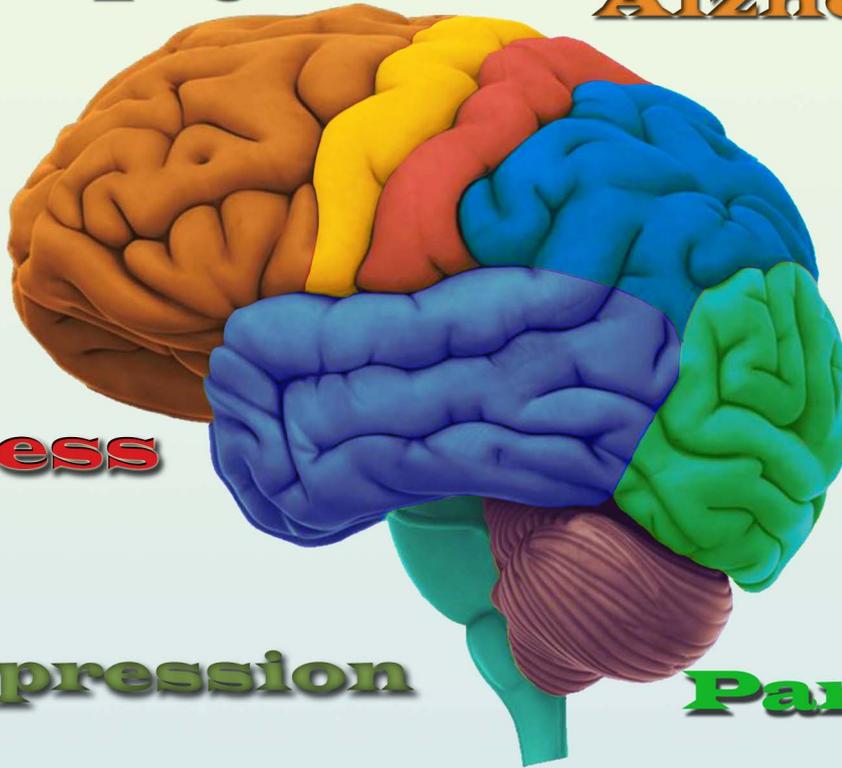
# Journal Cellular Neuroscience and Oxidative Stress

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Former name; Cell Membranes and Free Radical Research

**Epilepsy**

**Alzheimer**



**Pain**

**Stress**

**Depression**

**Paralysis**

**Brain Research School**

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Supp 1 Volume, 2019

# 4<sup>th</sup> International Brain Research School

24-30 June 2019 Isparta /TURKEY  
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# Journal of Cellular Neuroscience and Oxidative Stress

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Supp 1 Volume, 2019

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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<sup>+</sup>- K<sup>+</sup> Channels, Cl<sup>-</sup> channels, Ca<sup>2+</sup> channels, ADP-Ribose and metabolism of NAD<sup>+</sup>, 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<sup>+</sup> 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.

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## Abstract Book

of

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# Oral Presentations

## ▶ Oral Presentation 9

**The protective role of *Hypericum perforatum* in treatment of oxidative stress-induced multiple sclerosis is affected by extraction procedure: A literature review**

**Tunhan DEMİRCİ**

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Incidence of multiple sclerosis (MS) is increasing over all the world, because effective treatment of the disease has not been discovered yet. In the treatment of MS, different inflammatory chemical drugs have been used, but they have adverse effects on the normal cells and neurons, although plant extracts including *Hypericum perforatum* has no adverse effects on the normal cells in human. Oxidative stress induced excessive production of reactive oxygen species (ROS) and ROS production occurs during the several physiological and pathophysiological functions. *Hypericum perforatum* known as St. John's Wort, has been proven to relieve in depression. However, results of recent studies reported modulator role of *Hypericum perforatum* on MS in rats (Nazıroğlu et al. 2014). The cellular and molecular mechanisms that underlie the effects of the *Hypericum perforatum* on MS pain pathways are not known, results in the literature suggest that the modulator effects of *Hypericum perforatum* in MS could be related to an increase antioxidant effect (Mojaverrostami et al. 2018). Recently, modulator roles of plant extracts such as *Hypericum perforatum* and through inhibition of ROS production in the treatment of MS have been reported. However, antioxidant contents of the plant extracts were affected by several factors, including extraction procedures (Dresler et al. 2018). In the presentation, I will review current data on

the extraction procedures of *Hypericum perforatum*. In addition, I will summarize recent data on therapeutic roles of *Hypericum perforatum* in MS.

In conclusion, it seems that *Hypericum perforatum* has potential therapeutic effects against MS-induced oxidative stress.

**Keywords:** Antioxidants; *Hypericum perforatum*; Multiple sclerosis; Neuron.

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