

# Curriculum Vitae



## Personal Information

**First Name:** Marjan

**Surname:** Hosseini

**Date of Birth:** 12<sup>th</sup> July 1987

**Gender:** Female

**Nationality:** Iranian

**Place of Birth:** Tehran-Iran

**Marital Status:** Married

**Academic Degree:** Associate professor of Physiology

**Research field:** Central and Peripheral Pain (Behavioral and Molecular Aspects)

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## Educational Background

Degree	Institution	Field	Date	Place
B.Sc.	University of Tehran	Animal Biology	2011	Tehran, Iran
M.Sc.	Tehran University of Medical sciences	Medical Physiology	2015	Tehran, Iran
Ph.D.	Tehran University of Medical sciences	Medical Physiology	2021	Tehran, Iran

## Thesis

**M.Sc.:** Studying the effect of simultaneous injection of Endomorphin-1 and GABA agonist on pain threshold, superoxide dismutase level, glutathione and spinal cord NMDA receptors, after spinal cord injury in male rats.

**Ph.D.:** Investigating the effect of stimulation of group 3 metabotropic glutamate receptors in the PAG area on the Off-cells of the anterior ventral-middle area of the medulla, on motor function and pain sensation in the spinal cord injury model of male rats.

## Publications

- The Ginger Extract Improves Learning and Memory Impairment via Gut-Brain Axis Regulation in a Rat Alzheimer's Disease-Like Model (Under review).
- Genetic determinants of response to statins in Cardiovascular Diseases (Under review).
- The inhibiting role of periaqueductal gray metabotropic glutamate receptor subtype 8 in a rat model of central neuropathic pain (**Neurological Research**, 2021).
- The role of CGRP receptor antagonist (CGRP8-37) and Endomorphin-1 combination therapy on neuropathic pain alleviation and expression of Sigma-1 receptors and antioxidants in rats (**Journal of Chemical Neuroanatomy**, 2021).
- Evaluation of the Effect of (S)-3, 4-Dicarboxyphenylglycine as a Metabotropic Glutamate Receptors Subtype 8 Agonist on Thermal Nociception Following Central Neuropathic Pain (**Asian Spine Journal**, 2021).
- Simultaneous intrathecal injection of muscimol and endomorphin - 1 alleviates neuropathic pain in rat model of spinal cord injury (**Brain and Behavior**, 2021).
- The effect of periaqueductal gray's metabotropic glutamate receptor subtype 8 activation on locomotor function following spinal cord injury (**Scandinavian Journal of Pain**, 2021).
- Comparative Efficacy of GABA A and GABA B Receptor Agonists in Pain Alleviation in a Spinal Cord Injury Model of Neuropathic Pain (**Neurophysiology**, 2021).

- Targeting Caveolin-1 and Claudin-5 with AY9944, Improve Blood–Brain Barrier Permeability; Computational Simulation and Experimental Study (Cellular and Molecular Neurobiology (**CEMN**, 2021).
- Repeated Administration of Baclofen Modulates TRPV-1 Channel Expression by PKC Pathway in Dorsal Root Ganglia of Spinal Cord in Morphine Tolerance Model of Rats (**Iranian Biomedical Journal**, 2021).
- Netrin-1 protects the SH-SY5Y cells against amyloid beta neurotoxicity through NF- $\kappa$ B/Nrf2 dependent mechanism (**Molecular Biology Reports**, 2021).
- Stem cell conditioned medium as a novel treatment for neuroinflammation diseases (**International journal of medical investigation**, 2020).
- Huperzine A ameliorates cognitive dysfunction and neuroinflammation in kainic acid-induced epileptic rats by antioxidant activity and NLRP 3/caspase-1 pathway inhibition (**Clinical and Experimental Pharmacology and Physiology**, 2020).
- Rutin, a quercetin glycoside, alleviates acute endotoxemic kidney injury in C57BL/6 mice via suppression of inflammation and up-regulation of antioxidants and SIRT1 (**European journal of pharmacology**, 2019).
- Spinal 5-HT<sub>3</sub> receptor mediates nociceptive effect on central neuropathic pain; possible therapeutic role for tropisetron (**The journal of spinal cord medicine**, 2017).
- Anti-allodynic efficacy of NMDA antagonist peptide and noradrenaline alone and in combination in rodent neuropathic pain model (**The Korean journal of pain**, 2016).
- Effect of coenzyme Q10 on neuropathic pain threshold resulting from spinal cord injury in male rats (**Physiology and Pharmacology**, 2015).
- The effect of intrathecal administration of muscimol on modulation of neuropathic pain symptoms resulting from spinal cord injury; an experimental study (**Emergency**, 2015).

## **Presentations**

- The effect of intrathecal administration of muscimol on modulation of neuropathic pain symptoms resulting from spinal cord injury; an experimental study (The 3rd International Congress of Basic and Clinical Neurosciences, Iran University of Medical Sciences - Tehran (2014)).
- The study of simultaneous injection of Endomorphin1 and GABA agonist on pain threshold and GABA receptors changes, following spinal cord injury in male rats (The 24th International Congress of Physiology and Pharmacology - Tehran (2019)).

## **Teaching Experiences**

- Teaching Physiology at Alborz University of Medical Sciences, From March 2022 to Now, Karaj, Alborz Province, Iran.
- Teaching Physiology at Tehran University of Medical Sciences, From 2017 to 2020, Tehran, Tehran Province, Iran.
- Teaching Physiology at University of Tehran (Colleges of Engineering and Psychology), From 2017 to 2021, Tehran, Tehran Province, Iran.

## **Membership of Scientific Societies**

- Iranian Neuroscience Association.
- Iranian Society of Physiology and Pharmacology.

## **Workshops**

- First national electrophysiology congress for 24 hours at Imam Khomeini Hospital, 2014.
- Teaching method workshop at Tehran University of Science in 2015.
- Cerebral ischemia seminar, Tehran University of Medical Sciences in 2015.
- Biosafety workshop at the Faculty of Medicine of Tehran University of Medical Sciences in 2015.
- "All in workshop" workshop on preclinical imaging at TUMS preclinical core facility in 2017.

- The post-traumatic stress disorder conference of Electrophysiology Research Center in 2018.
- Alzheimer Disease Conference, Electrophysiology Research Center in 2018.
- Single unit registration workshop, Tarbiat Modares University in 2019.

### **Executive participation**

- Member of the executive committee of the second gathering of research week, Tehran University of Medical Sciences.

### **Technical Skills and experience**

- CNS Surgical and drug delivery models: Brain and Spinal Cord
- Types of central and peripheral pain models
- Spinal cord injury model
- Stereotaxic surgery
- Cryostat Microtomy
- Staining methods
- Immunohistochemistry
- Western blotting
- Spectrophotometry
- Types of pain and movement behavioral tests