

Curriculum Vitae

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Education

2016: Postdoctoral fellowship, in University Health Network, Krembil Discovery Tower, Toronto, Ontario, Canada.

2011: PhD, in Physiology, Tarbiat Modares University, Tehran, Iran.

2010: MSc, in Physiology, Tarbiat Modares University, Tehran, Iran.

2006: BSc in Biology, Shahid Chamran University of Ahvaz, Iran.

MSc Thesis: Investigation on the mechanism of the exercise on increased cutaneous vascular responsiveness to insulin in rats: Role of nitric oxide, calcium activated potassium channels and ATP- sensitive potassium channels.

PhD Thesis: Effect of low frequency stimulation on seizure-induced impairment in memory and in synaptic potentiation of hippocampal slices of kindled rats.

Postdoctoral Project: Characterization of the activation phenotype of microglia and macrophage population post intr-acerebral hemorrhage

Experimental skills

- Whole cell patch clamp (Voltage and current clamp recording)
- Electrical and chemical kindling
- Animal brain stereotaxic surgery
- Cannulation
- Electrode implantation
- neonatal seizure (Hypoxia induced neonatal seizure)
- Some behavioral tests such as Open field, Y-maze test, Morris water maze, Novel object recognition, Elevated plus maze and Rotarod
- qRT-PCR
- Measurement of skin blood flow with Laser Doppler

Articles

1. Ghafouri S, Hajizadeh S, Mani AR. Enhancement of insulin-induced cutaneous vasorelaxation by exercise in rats: A role for nitric oxide and KCa_{2+} channels. *Eroupean Journal of Pharmacology*, 2011.
2. Ghafouri S, Fathollahi Y, Semnanian S, Shojaei A, Mirnajafi-Zadeh J. Effects of Low Frequency Stimulation on Spontaneous Inhibitory and Excitatory Post-Synaptic Currents in Hippocampal CA1 Pyramidal Cells of Kindled Rats. *Cell journal*, 2016.
3. Asgari A, Semnaian S, Atapour N, Shojaei A, Moradi-Chameh H, Ghafouri S, Sheibani V, Mirnajafi-Zadeha J. Low-frequency electrical stimulation enhances the effectiveness of phenobarbital on GABAergic currents in hippocampal slices of kindled rats. *Neuroscience Journal*, 2016.
4. Samireh Ghafouri, Yaghoub Fathollahi, Mohammad Javan, Amir Shojaei, Azam Asgari, Javad Mirnajafi-Zadeh. Effect of low frequency stimulation on impaired spontaneous alternation behavior of kindled rats in Y-maze test. *Epilepsy research Journal*, 2016.
5. Samireh Ghafouri, Yaghoub Fathollahi, Saeed Semnanian, Amir Shojaei, Azam Asgari, Azin Ebrahim Amini, Javad Mirnajafi-Zadeh. Deep brain stimulation restores the glutamatergic and GABAergic synaptic transmission and plasticity to normal levels in kindled rats. *PLOS ONE*, 2019.

6. Seyed Ali Mard, Samireh Ghafouri. Objective structured practical examination in experimental physiology increased satisfaction of medical students. *Advances in Medical Education and Practice Journal*, 2020.
7. Razieh Kazemzadeh, Layasadat Khorsandi, Maryam Radan, Samireh Ghafouri, Seyyed Ali Mard. Pretreatment with p-coumaric acid protect rat's liver against ischemia-reperfusion injury. *Physiology and Pharmacology Journal*, 2021.
8. Seyed Ahmad Najafian, Yaghoob Farbood, Alireza Sarkaki, Samireh Ghafouri. FTY720 administration following hypoxia-induced neonatal seizure reverse cognitive impairments and severity of seizures in male and female adult rats: The role of inflammation. *Neuroscience Journal*, 2021.
9. Davood Shalياهوmadi, Kowsar Bavarsad, Mohammad Momeni, Roya Salehi Kahyesh, Samireh Ghafouri. Improved a Guillain-Barre Syndrome Patient with Positive PCR Test for Coronavirus in Cerebrospinal Fluid After Plasmapheresis: A Case Report. *Jentashapir J. Cell. Mol. Biol*, 2021.
10. Mina Echreshavi, Narges Shakerian, Hassan Kiani Shahvandi, Mohammad Momeni, Asieh Mehrmiri & Samireh Ghafouri. Time perception impairment in multiple sclerosis patients: a survey on internal clock model. *Neuroscience and Behavioral Physiology*, 2022.
11. Davood Shalياهوmadi, Mohammadreza Sobouti, Mohammad Momeni, Kowsar Bavarsad, Samireh Ghafouri. Coronavirus in a patient with positive PCR test in cerebrospinal fluid led to an acute generalized tonic-clonic convulsion without brain lesion in computed tomography scan: a case report. *Pathbiology research*, 2022.
12. Parisa Arvin, Samireh Ghafouri, Kowsar Bavarsad, Somayeh Hajipour, Seyed Esmail Khoshnam, Alireza Sarkaki, Yaghoob Farbood. Therapeutic effects of growth hormone in a rat model of total sleep deprivation: Evaluating behavioral, hormonal, biochemical and electrophysiological parameters. *Behavioural Brain Research*, 2023.
13. Parisa Arvin, Samireh Ghafouri, Kowsar Bavarsad, Somayeh Hajipour, Seyed Esmail Khoshnam, Alireza Sarkaki, Yaghoob Farbood. Administration of growth hormone ameliorates adverse effects of total sleep deprivation. *Metabolic brain disease*, 2023.
14. Parisa Arvin, Samireh Ghafouri, Kowsar Bavarsad, Somayeh Hajipour, Esrafil Mansouri, Alireza Sarkaki, Yaghoob Farbood. Exogenous growth hormone administration during total sleep deprivation changed the microRNA-9 and dopamine D2 receptor expressions followed by improvement in the hippocampal synaptic potential, spatial cognition, and inflammation in rats. *Psychopharmacology*, 2023.
15. Sadegh Moradi Vastegani, Seyed Esmaeil Khoshnam, Esrafil Mansouri, Somayeh Hajipour, Samireh Ghafouri, Nima Bakhtiari, Alireza Sarkaki, Yaghoob Farbood. Neuroprotective effect of anethole against rotenone induced non-motor deficits and oxidative stress in rat model of Parkinson's disease. *Behavioural Brain Research*, 2023.

16. Sadegh Moradi Vastegani, Seyed Esmaeil Khoshnam, Esrafil Mansouri, Samireh Ghafouri, Nima Bakhtiari, Yaghoob Farbood, Alireza Sarkaki. Anti-inflammatory, anti-apoptotic, and neuroprotective potentials of anethole in Parkinson's disease-like motor and non-motor symptoms induced by rotenone in rats. *Metabolic brain disease*, 2023.
17. Sadegh Moradi Vastegani, Seyed Esmaeil Khoshnam, Samireh Ghafouri, Nima Bakhtiari, Yaghoob Farbood, Alireza Sarkaki. Anethole attenuates motor dysfunctions, striatal neuronal activity deficiency and blood brain barrier permeability by decreasing striatal α -synuclein and oxidative stress in rotenone-induced Parkinson's disease of male rats. *PLOS ONE*, 2023.
18. Mahmoud Rezaei, Samireh Ghafouri, Azam Asgari, Victoria Barkley, Yaghoob Fathollahi, Sareh Rostami, Amir Shojaei, Javad Mirnajafi-Zadeh. Involvement of dopamine D2-like receptors in the antiepileptogenic effects of deep brain stimulation during kindling in rats. *CNS Neuroscience and Therapeutics*, 2023.
19. Somayeh Hajipour, Maryam Khombi Shooshtari, Yaghoob Farbood, Seyed Ali Mard, Alireza Sarkaki, Homeira Moradi Chameh, Neda Sistani Karampour, Samireh Ghafouri. Fingolimod prevents cognitive impairments following hypoxia-induced neonatal seizure by ameliorating the inflammation and oxidative stress in male and female juvenile rats. *Learning and Motivation*, 2023.
20. Somayeh Hajipour, Maryam Khombi Shooshtari, Yaghoob Farbood, Seyed Ali Mard, Alireza Sarkaki, Homeira Moradi Chameh, Neda Sistani Karampour, Samireh Ghafouri. Fingolimod Administration Following Hypoxia Induced Neonatal Seizure Can Restore Impaired Long-term Potentiation and Memory Performance in Adult Rats. *Neuroscience*, 2023.
21. Arash Alqasi, Zeinab Roshandelpour, Roya Salehi Kahyesh, Morteza Joorabian, Shiva Razi & Samireh Ghafouri. Chemotherapy-Induced Peripheral Neuropathy in Children Treated for Acute Lymphoblastic Leukemia: A Role for Oxidative Stress and Brain-Derived Neurotrophic Factor. *Clinical Neurochemistry*, 2023.
22. Kowsar Bavarsad, Davood Shalil Ahmadi, Mohammad Momeni, Mohammad Jafar Yadyad, Roya Salehi Kahyesh, Hamid Moradzadegan, Samireh Ghafouri. Evaluation of the relationship between serum BDNF concentration and indicators of oxidative stress and inflammation in COVID-19 patients with neurological disorders - a pilot study. *Neurological Research*. 2023.
23. Nazanin Joudaki, Samireh Ghafouri, Kowsar Bavarsad, Farbod Farhadi, Marzieh Abbasi Nasab, Sara Afzalzadeh, Hamidreza Moradzadegan, Roya Salehi Kahyesh. Evaluation of antibody titers in COVID-19 patients with cerebral or pulmonary symptoms and mild symptoms. *Iranian Journal of Microbiology*, 2023.

Academic Experience

2010: Teaching Experience: Medical Physiology at Dezful University of Medical Sciences.

2012: Member of executive committee at the 2th Tehran IBRO school of Neuroscience.

2013: Laboratory tutor at the 3th Tehran IBRO school of Neuroscience.

2014: Laboratory tutor at the 4th Tehran IBRO school of Neuroscience.

2014: Poster presentation at 3th basic and clinical neuroscience congress, Tehran, Iran.
2015: Poster presentation at 1th international and 22th national physiology and pharmacology congress, Kashan, Iran.
2015: Oral presentation 4th basic and clinical neuroscience congress, Tehran, Iran.
2016: Laboratory tutor at the 5th Tehran IBRO school of Neuroscience.
2017: Oral presentation 6th basic and clinical neuroscience congress, Tehran, Iran.
2023: Poster presentation at 5th international and 26th national physiology and pharmacology congress, Kashan, Iran.

Awards and honors

First rank amongst accepted volunteers of PhD exam in the field of Medical Physiology at Tarbiat Modares University.

Research interest

- Electrophysiology, Patch Clamp recording, EEG recording and synaptic plasticity.
- I am expert in preparation of live brain slices as well as Patch Clamp (Current and voltage clamp) recording from CA1 Hippocampus area.
- I am also expert in kindling experimental animals as well as in vivo field potential recording.
- Neonatal model of seizure (Hypoxia induced-neonatal seizure)

Executive experiences

- The head of student research committee in faculty of Medicine, Ahvaz Jundishapur University of Medical Sciences (AJUMS), (2019-2021).
- Scientific secretary of USERN in AJUMS, (2022-Now).
- The head of international events in AJUMS, (2022-Now).
- Senior leadership team for ranking system in AJUMS, (2022-Now).

References

1. **Dr. Seyed Javad Mirnajafi-Zadeh, Email address: javad.mirnajafi@gmail.com**
2. **Dr. Saeed Semnian, Email address: ssemnan@hotmail.com**