Education:

Undergraduate School: B.Sc in Biology

Graduate School: M.Sc in Medical Physiology, TMU, Tehran, I.R. Iran.

Doctoral Degree: Ph.D. in Medical Physiology, TMU, Tehran, I.R. Iran.

Postdoctral training: Fourth IBRO postdoctoral training workshop in Basic Neuroscience, Hong Kong.

Teaching experience:

a- Teaching Medical Physiology since 1987.

b- Teaching Physiology for M.Sc students since 1991.

c- Teaching Physiology for Ph.D. students since 1995.

Present research interest: Network Physiology, Synaptic plasticity and Metaplasticity

Research experiences:

1-Brain cannulation in rat

2- Brain slices

3- Extra- and intracellular recording methods

4- Methods of learning and memory studies

5- Methods of the animal model of epilepsy

Publications

Manuscripts:

Papers in the international journals:

1. Choupankareh S, Zare M, Rezaei M, Barkley V, Shojaei A, Raoufy MR, Fathollahi Y, Mirnajafi-Zadeh J. Effect of low frequency stimulation of olfactory bulb and olfactory epithelium on epileptiform activity and synaptic plasticity following pentylenetetrazol administration in rats. Behav Brain Funct. 2026 Jan 30;22(1):10. doi: 10.1186/s12993-025-00317-7. PMID: 41618379; PMCID: PMC12933905.
2. Khani F, Pourmotabbed A, Fathollahi Y, Moradpour F, Moradi MT, Azizi H. Long-term dark avoidance memory and ventral hippocampal CA1 synaptic impairments in adult rats after sub-chronic exposure to morphine during adolescence. Physiol Behav. 2026 Nov 1;316:115475. doi: 10.1016/j.physbeh.2026.115475. Epub 2026 Aug 13. PMID: 42595284.
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4. Alami K, Fathollahi Y, Hashemizadeh S, Mosleh M, Semnanian S, Mousavi SY, Azizi H. Microglia-dependent peripheral neuropathic pain in adulthood following adolescent exposure to morphine in male rats. Neuropharmacology. 2025 Feb 1;263:110211. doi: 10.1016/j.neuropharm.2024.110211. Epub 2024 Nov 8. PMID: 39521039.
5. Ghamkharinejad G, Mottarlini F, Tavassoli Z, Caffino L, Fumagalli F, Homberg JR, Fathollahi Y. Habituation to novel stimuli alters hippocampal plasticity associated with morphine tolerance in male Wistar rats. Brain Res. 2025 Apr 15;1853:149508. doi: 10.1016/j.brainres.2025.149508. Epub 2025 Feb 13. PMID: 39954800.
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7. Nabi-Afjadi M, Dabirmanesh B, Asghari SM, Ramezanpour S, Fathollahi Y, Khajeh K. Design, synthesis, and evaluation of the effect of potential peptides against CD38: An in silico and in vitro study. Biomed Pharmacother. 2025 Aug;189:118347. doi: 10.1016/j.biopha.2025.118347. Epub 2025 Jul 12. PMID: 40652724.
8. Zarei P, Raoufy MR, Shojaei A, Fathollahi Y, Mirnajafi-Zadeh J. Effect of High-frequency Electrical Stimulation of Olfactory Bulb on Spontaneous Excitatory Postsynaptic Currents in Hippocampal CA1 Pyramidal Cells of Kindling Rats. Basic Clin Neurosci. 2025 Mar-Apr;16(2):393-402. doi: 10.32598/bcn.2024.1854.2. Epub 2025 Mar 1. PMID: 42382514; PMCID: PMC13318198.

9. Ahmadi M, Rouhi N, Fathollahi Y, Shojaei A, Rezaei M, Rostami S, Saab BJ, Mirnajafi-Zadeh J. A Dual Effect of Dopamine on Hippocampal LTP and Cognitive Functions in Control and Kindled Mice. J Neurosci. 2024 Jan 31;44(5):e0926212023. doi: 10.1523/JNEUROSCI.0926-21.2023. PMID: 38124004; PMCID: PMC10860576.
10. Anvari S, Javan M, Mirnajafi-Zadeh J, Fathollahi Y. Erratum to "Repeated Morphine Exposure Alters Temporoamonic-CA1 Synaptic Plasticity in Male Rat Hippocampus" [Neuroscience 545 (2024) 148-157]. Neuroscience. 2024 Jun 7;548:81. doi: 10.1016/j.neuroscience.2024.04.007. Epub 2024 Apr 26. Erratum for: Neuroscience. 2024 May 3;545:148-157. doi: 10.1016/j.neuroscience.2024.03.015. PMID: 38685272.
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