



In the name of God



Curriculum Vita Javad Mirnajafi-Zadeh

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I. PERSONAL INFORMATION:

Name: Javad Mirnajafi-Zadeh

Academic Degree: Professor of Physiology

Position: Faculty member

Date of Birth: 1968 /9/18

Place of Birth: Kerman-Iran

Marital Status: Married

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My research interest

Our general goal is to understand the hyper-excitability-induced changes in synaptic transmission and synaptic plasticity. We are particularly interested to know the effect of brain stimulation on modulation of these changes. In addition, finding the mechanisms involved in modulatory effects of brain stimulation on synaptic transmission are of our interest. We have also focused on hyper-excitability induced impairments in learning and memory, and on the probable preventing effect of brain stimulation on these impairments. For induction of hyper-excitability, we use different laboratory techniques for induction of seizure behavior in vivo (e.g. electrical and chemical kindling, electroshock, pilocarpine injection) or in vitro (e.g. high K⁺ induced epileptiform activity). These questions are studied by employing a combination of electrophysiological, behavioral and molecular approaches in rats.

We are planning to develop optogenetic technique in our future experiments for a better understanding the role of specific neurotransmitters on the effectiveness of brain stimulation in hyper-excitabile cells.

II. EDUCATIONAL RECORDS:

Degree	Institution	Field	Date	Place
B.Sc.	Shaheed Bahonar University	Biology	1990	Kerman, Iran
M.Sc.	Tarbiat Modares University	Physiology	1994	Tehran, Iran
Ph.D.	Tarbiat Modares University	Physiology	1999	Tehran, Iran

III. THESIS AND DESERTATION:

M.Sc.: The role of hippocampal adenosine system on amygdala kindled seizures in rats

Ph.D.: The study on interaction between amygdala and hippocampal CA1 region in kindling model of epilepsy and the role of adenosine A1 receptors in this interaction in rats

IV. ACADEMIC EXPERIENCES:

1. Head of Physiology Department at Tarbiat Modares University (2002- 2006; 2008-2010; 2012- till now).
2. Technical Manager of Iranian Journal of Physiology and pharmacology (1998- 2000)
3. Scientific Committee member of 16th Iranian Congress of Physiology and Pharmacology (2005)
4. Scientific Committee member of 17th Iranian Congress of Physiology and Pharmacology (2007)
5. Scientific Committee member of 18th Iranian Congress of Physiology and Pharmacology (2009)
6. Scientific Committee member of 19th Iranian Congress of Physiology and Pharmacology (2011)
7. Scientific Committee member of 2nd Iranian Congress of Neurosciences
8. Member of Editorial board of Iranian journal of "Physiology and Pharmacology" (2008- continued)
9. Member of Editorial board of "Iranian Journal of Neuroscience" (2009-continued)
10. Editor of Newsletter of Iranian Society of Physiology and Pharmacology (2007-2010)
11. Research Scientist in RIKEN/BSI (Lab for cortical circuit plasticity) (August 20, 2010- November 23, 2011)
12. Research Scientist in RIKEN/BSI (Lab for cortical circuit plasticity) (November 2011- May 2013)
13. Academic staff of Physiology Department of Tarbiat Modares University (2000-continued)
14. Executive manager of 2nd Tehran IBRO School of Neuroscience (May 12 23, 2012, Tehran, Iran)
15. Research Scientist in RIKEN/BSI (Lab for cortical circuit plasticity) (June 1, 2013-November 30, 2013)
16. Director of 4th Tehran IBRO School of Neuroscience (Oct 17-28, 2014, Tehran, Iran)
17. Research Scientist in RIKEN/BSI (Lab for cortical circuit plasticity) (March 22, 2015- continued)
18. 1st Vice president of FAOPS (Dec. 2016- continued)

V. MEMBERSHIP OF SCIENTIFIC SOCIETIES:

1. International Brain Research Organization (IBRO)
2. Iranian Society of Physiology and Pharmacology
3. Iranian Epilepsy Society
4. Iranian Society of Neurosciences
5. Japanese Neuroscience Society

VI. RESEARCH EXPERIENCES:

1. Investigation the changes in synaptic activity in kindling model of epilepsy
2. Investigation the role of adenosine receptors in kindled seizures
3. Investigation the anticonvulsant mechanisms of “low frequency stimulations” in kindled seizures using freely moving field potential recording
4. Whole cell patch clamp recording of hippocampal slices
5. Double whole cell patch recording in GABAergic neurons
6. Optogenetics method for stimulation

VII. PUBLICATIONS

JOURNAL PAPERS

International Papers

- 1- Effect of intraperitoneal and intrahippocampal (CA1) 2-chloroadenosine in amygdaloid kindled rats, MH Pourgholami, J Mirnajafi-Zadeh, J Behzadi, *Brain Research*, 751 (1997) 259-264.
- 2- Intraamygdala infusion of 2-chloroadenosine suppresses amygdala kindled seizures, MH Pourgholami, M. Rostampour, J Mirnajafi-Zadeh, MR Palizvan, *Brain Research*, 775 (1997) 34-42.
- 3- Anticonvulsant action of 2-chloroadenosine injected focally into the perirhinal cortex in amygdaloid kindled rats, J Mirnajafi-Zadeh, MH Pourgholami, MR Palizvan, M Rostampour , *Epilepsy Research*, 37 (1999) 37-43.
- 4- Intraperitoneal and intraamygdala N⁶-cydohexyladenosine suppress hippocampal kindling in rats, J Mirnajafi-Zadeh, Y Fathollahi, MH Pourgholami, *Brain Research*, 858 (2000) 48-54.
- 5- Differential effects of pentylentetrasol-kindling on long term potentiation of population excitatory postsynaptic potential and population spikes in the CA1 region of rat hippocampus, MR Palizvan, Y Fathollahi, S Semnianian, S Hajizadeh, J Mirnajafi-Zadeh, *Brain Research*, 898 (2001) 82-90.
- 6- Anticonvulsant effect of bilateral injection of N⁶-cyclohexyladenosine into the CA1 region of the hippocampus in amygdala kindled rats, M Alasvand Zarasvand, J Mirnajafi-Zadeh, Y Fathollahi, MR Palizvan, *Epilepsy Research*, 47 (2001) 141-149.
- 7- Cysteamine pre-treatment reduces pentylentetrazol-induced plasticity and epileptiform discharge in the CA1 region of rat hippocampal slices, M Rostampour, Y Fathollahi, S

- Semnanian, S Hajizadeh, J Mirnajafi-Zadeh, M Shafizadeh, *Brain Research*, 955 (2002) 98-103.
- 8- The ability of hippocampal CA1 area for induction of long term potentiation is persistently reduced by prior treatment with cysteamine: an in vitro study, M Rostampour, Y Fathollahi, S Semnanian, S Hajizadeh, J Mirnajafi-Zadeh, M Shafizadeh, *Neuropeptides*, 36 (2002) 263-270.
 - 9- Effect of transient hippocampal inhibition on amygdaloid kindled seizures and amygdaloid kindling rats, J Mirnajafi-Zadeh, M Mortazavi, Y Fathollahi, M Alasvand Zarasvand, MR Palizvan, *Brain Research*, 954 (2002) 220-226.
 - 10- Hippocampal hyperexcitability facilitates amygdala kindling in rats, J Mirnajafi-Zadeh, MH Pourgholami, *Indian Journal of Medical Research*, 116 (2002) 35-40.
 - 11- The role of adenosine A₁ receptors in the interaction between amygdala and entorhinal cortex of kindled rats, Mohammad-Zadeh M, Amini A, Mirnajafi-Zadeh J, Fathollahi Y, ***Epilepsy Research***, (2005) 65(2005) 1-9.
 - 12- Zeraati M, Mirnajafi-Zadeh J, Fathollahi Y, Namvar S, Rezvani ME, Adenosine A1 and A2A receptors of hippocampal CA1 region have opposite effects on piriform cortex kindled seizures in rats, *Seizure*, 15 (2006) 41-48.
 - 13- Shahabi P, Mirnajafi-Zadeh J, Fathollahi Y, Hosseinmardi N, Rezvani ME, Eslami-far A, Amygdala adenosine A1 receptors have no anticonvulsant effect on piriform cortex-kindled seizures in rat, *Canadian Journal of Physiology and Pharmacology*, 84 (2006) 913-921.
 - 14- Heidarianpour A, Sadeghian E, Mirnajafi-Zadeh J, Fathollahi Y, Mohammad-Zadeh M, Anticonvulsant effects of N6-cyclohexyladenosine microinjected into the CA1 region of the hippocampus on entorhinal cortex-kindled seizures in rats, *Epileptic Disorders*, 8 (2006) 259-266.
 - 15- Rezvani ME, Mirnajafi-Zadeh J, Fathollahi Y, Palizvan MR, Changes in neuromodulatory effect of adenosine A1 receptors on piriform cortex field potentials in amygdale kindled rats, *European Journal of Pharmacology*, 565 (2007) 60-67.
 - 16- Rezvani ME, Mirnajafi-Zadeh J, Fathollahi Y, Palizvan MR, Anticonvulsant effect of A1 but not A2A adenosine receptors of piriform cortex in amygdale kindled rats, *Canadian Journal of Physiology and Pharmacology*, 85 (2007) 1-8.
 - 17- Mohammad-Zadeh M, Mirnajafi-Zadeh J, Fathollahi Y, Javan M, Ghorbani P, Sedagh M, Noorbakhsh SM, Effect of low frequency stimulation of perforant path on kindling rate and synaptic transmission in the dentate gyrus during kindling acquisition in rats, *Epilepsy Research*, 75 (2007) 154-161.
 - 18- Ghorbani P, Mohammad-Zadeh M, Mirnajafi-Zadeh J, Fathollahi Y, Effect of different patterns of low-frequency stimulation on piriform cortex kindled seizures, *Neuroscience Letters*, 425 (2007) 162-166.

- 19- Sadegh M, Mirnajafi-Zadeh J, Javan M, Fathollahi Y, Mohammad-Zadeh M, Jahanshahi A, Nourbakhsh SM, The role of galanin receptors in anticonvulsant effects of low frequency stimulation in perforant path kindled rats, *Neuroscience*, 150 (2007) 396-403.
- 20- Salmani ME, Mirnajafi-Zadeh J, Fathollahi Y, Offsetting of aberrations associated with seizure proneness in rat hippocampus area CA1 by theta pulse stimulation-induced activity pattern, *Neuroscience*, 149 (2007) 518-526.
- 21- Namvar S, Zeraati M, Mirnajafi-Zadeh J, Fathollahi Y, Rezvani ME, The role of piriform cortex adenosine A1 receptors on hippocampal kindling, *Canadian Journal of Neurological Sciences*, 35 (2008) 226-231.
- 22- Mohammad-Zadeh M, Mirnajafi-Zadeh J, Fathollahi Y, Javan M, Jahanshahi A, Noorbakhsh SM, Motamedi F, The role of adenosine a1 receptors in mediating the inhibitory effects of low frequency stimulation of perforant path on kindling acquisition in rats, *Neuroscience*, 158 (2009) 1632-1643.
- 23- Sadegh M, Mirnajafi-Zadeh J, Sheibani V, Serine/threonine protein phosphatases have no role in the inhibitory effects of low-frequency stimulation in perforant path kindling acquisition in rats, *Neuroscience Letters*, 451(2009) 266-269.
- 24- Jahanshahi A, Mirnajafi-Zadeh J, Javan M, Mohammad-Zadeh M, Rohani R, The antiepileptogenic effect of electrical stimulation at different low frequencies is accompanied with change in adenosine receptors gene expression in rats, *Epilepsia*, 50 (2009) 1768-1779.
- 25- Goudarzvand M, Javan M, Mirnajafi-Zadeh, Mozafari S, Tiraihi T, Vitamins E and D3 attenuate demyelination and potentiate remyelination processes of hippocampal formation of rats following local injection of ethidium bromide, *Cellular and Molecular Neurobiology* 30 (2010) 30:289–299.
- 26- Azizi H, Mirnajafi-Zadeh J, Rohampour K, Semnanian S, Antagonism of orexin type 1 receptors in the locus coeruleus attenuates signs of naloxone-precipitated morphine withdrawal in rats, *Neuroscience Letters* 482 (2010) 255–259.
- 27- Elahdadi Salmani M, Fathollahi Y, Mirnajafi-Zadeh J, Semnanian S, Epileptogenic insult alters endogenous adenosine control on long-term changes in synaptic strength by theta pattern stimulation in hippocampus area CA1, *Synapse* 65 (2011) 189–197.
- 28- Mozafari S, Sherafat MA, Javan M, Mirnajafi-Zadeh J, Tiraihi T, Visual evoked potentials and MBP gene expression imply endogenous myelin repair in adult rat optic nerve and chiasm following local lyssolecithin induced demyelination, *Brain Research* 1351 (2010) 50–56.
- 29- Mozafari S, Javan M, Sherafat MA, Mirnajafi-Zadeh J, Heibatollahi M, Pour-Beiranvand S, Tiraihi T, Ahmadiani A, Analysis of structural and molecular events associated with adult rat optic chiasm and nerves demyelination and remyelination; possible role for 3rd ventricle proliferating cells, *Neuromolecular Medicine*, 13 (2011) 138-150.

- 30- Abdanipour A, Tiraihi T, Mirnajafi-Zadeh J. Improvement of the pilocarpine epilepsy model in rat using bone marrow stromal cell therapy. *Neurological Research*, 33(2011) 625-632.
- 31- Sherafat MA, Javan M, Mozafari S, Mirnajafi-Zadeh J, Motamedi F. Castration attenuates myelin repair following lysolecithin induced demyelination in rat optic chiasm: an evaluation using visual evoked potential, marker genes expression and myelin staining. *Neurochemical Research* 36(2011) 887-895.
- 32- Hajiasgharzadeh K, Mirnajafi-Zadeh J, Mani AR. Interleukin-6 impairs chronotropic responsiveness to cholinergic stimulation and decreases heart rate variability in mice. *European Journal of Pharmacology*, 673 (2011) 70-77.
- 33- Shahpari M, Mirnajafi-Zadeh J, Firoozabadi SMP, Yadollahpour A, Effect of low-frequency electrical stimulation parameters on its anticonvulsant action during rapid perforant path kindling in rat, *Epilepsy Research*, 99 (2012) 69-77.
- 34- Dehghan S, Javan M, Pourabdolhossein F, Mirnajafi-Zadeh J, Baharvand H. Basic fibroblast growth factor potentiates myelin repair following induction of experimental demyelination in adult mouse optic chiasm and nerves. *Journal of Molecular Neuroscience*, 48 (2012) 77-85.
- 35- Sarihi A, Mirnajafi-Zadeh J, Jiang B, Sohya K, Safari M.-S, Arami M.K, Yanagawa Y, Tsumoto T. Cell type-specific, presynaptic LTP of inhibitory synapses on fast-spiking GABAergic neurons in the mouse visual cortex. *The Journal of Neuroscience*, 32 (2012) 13189-13199.
- 36- Ghotbedin Z, Janahmadi M, Mirnajafi-Zadeh J, Behzadi G, Semnianian S. Electrical low frequency stimulation of the kindling site preserves the electrophysiological properties of the rat hippocampal CA1 pyramidal neurons from the destructive effects of amygdala kindling: The basis for a possible promising epilepsy therapy. *Brain Stimulation*, 6 (2013) 515-523.
- 37- Asghari A.A, Azarnia M, Mirnajafi-Zadeh J, Javan M. Adenosine A1 receptor agonist, N6-cyclohexyladenosine, protects myelin and induces remyelination in an experimental model of rat optic chiasm demyelination; electrophysiological and histopathological studies. *Journal of the Neurological Sciences*, 325 (2013) 22-28.
- 38- Azin M, Mirnajafi-Zadeh J, Javan M. Field potential recording from rat hippocampus provides a functional evaluation method for assessing demyelination and myelin repair. *Neurological Research*, 35 (2013) 837-43.
- 39- Mongabadi S, Firoozabadi S.M, Javan M, Shojaei A, Mirnajafi-Zadeh J, Effect of different frequencies of repetitive transcranial magnetic stimulation on acquisition of chemical kindled seizures in rats. *Neurological Science*, 34 (2013) 1897-903.

- 40- Davoudi M, Shojaei A, Palizvan M.R, Javan M, Mirnajafi-Zadeh J, Comparison between standard protocol and a novel window protocol for induction of pentylenetetrazol kindled seizures in the rat. *Epilepsy Research*, 106 (2013) 54-63.
- 41- Satarian L, Javan M, Kiani S, Hajikaram M, Mirnajafi-Zadeh J, Baharvand H, Engrafted human induced pluripotent stem cell-derived anterior specified neural progenitors protect the rat crushed optic nerve. *PLoS One*, 8 (2013) e71855.
- 42- Esmailpour Kh, Masoumi-Ardakani Y, Sheibani V, Shojaei A, Harandi Sh, Mirnajafi-Zadeh J, Comparing the Anticonvulsant Effects of Low Frequency Stimulation of Different Brain Sites on the Amygdala Kindling Acquisition in Rats. *Basic and Clinical Neuroscience*, 4 (2013) 68-74.
- 43- Harandi Sh, Abbasnejad M, Mirnajafi-Zadeh J, Esmaeili-Mahani S, Esmailpour Kh, Asadi-Shekaari M, Mostafavi A, Sheibani V. Inhibitory effects of walnut consumption on amygdala kindling model of epilepsy in male Wistar rats. *Journal of Veterinary Research*, 17 (2013) 360-369.
- 44- Rohani R, Piryaee A, Jahanshahi A, Sadeghi Y, Mirnajafi-Zadeh J, Effect of low-frequency stimulation on kindling induced changes in rat dentate gyrus: an ultrastructural study. *Acta Neurologica Belgica*, 114 (2014) 47-53.
- 45- Yadollahpour A, Firouzabadi SM, Shahpari M, Mirnajafi-Zadeh J, Repetitive transcranial magnetic stimulation decreases the kindling induced synaptic potentiation: Effects of frequency and coil shape. *Epilepsy Research*, 108 (2014) 190-201.
- 46- Asgari A, Semnania S, Atapourb N, Shojaei A, Moradia H, Mirnajafi-Zadeh J, Combined sub-threshold dosages of phenobarbital and low frequency stimulation effectively reduce seizures in amygdala-kindled rats. *Neurological Sciences*, 35 (2014) 1255-1260.
- 47- Mousavi Y, Azizi H, Mirnajafi-Zadeh J, Javan M, Semnanian S., Blockade of orexin type-1 receptors in locus coeruleus nucleus attenuates the development of morphine dependency in rats. *Neuroscience Letters*, 578 (2014) 90-94.
- 48- Kimura R, Safari MS, **Mirnajafi-Zadeh J**, Kimura R, Ebina T, Yanagawa Y, Sohya K, Tsumoto T. Curtailing effect of awakening on visual responses of cortical neurons by cholinergic activation of inhibitory circuits. *The Journal of Neuroscience*, 34 (2014) 10122-10133.
- 49- Pourabdolhossein F, Mozafari S, Morvan-Dubois G, **Mirnajafi-Zadeh J**, Lopez-Juarez A, Pierre-Simons J, Demeneix BA, Javan M. Nogo Receptor Inhibition Enhances Functional Recovery following Lysolecithin-Induced Demyelination in Mouse Optic Chiasm. *PLoS One*, 9 (2014) e106378.
- 50- Shojaei A, Semnanian S, Janahmadi M, Moradi-Chameh H, Firoozabadi SM, **Mirnajafi-Zadeh J**., Repeated transcranial magnetic stimulation prevents kindling-induced changes in electrophysiological properties of rat hippocampal CA1 pyramidal neurons. *Neuroscience*, 7(2014) 181-92.

- 51- Moradi-Chameh H, Janahmadi M, Semnianian S; Shojaei A, **Mirnajafi-Zadeh J.**, Effect of low frequency repetitive transcranial magnetic stimulation on kindling-induced changes in electrophysiological properties of rat CA1 pyramidal neurons. *Brain Research*, 1606 (2015) 34-43.
- 52- Abdollahnejad F, Mosaddegh M, Kamalinejad M, **Mirnajafi-Zadeh J**, Najafi F, Faizi M., Investigation of sedative and hypnotic effects of *Amygdalus communis* L. extract: behavioral assessments and EEG studies on rat. *J Nat Med.* 2016 Apr;70(2):190-7.
- 53- Dehghan S, Hesaraki M, Soleimani M, **Mirnajafi-Zadeh J**, Fathollahi Y, Javan M., Oct4 transcription factor in conjunction with valproic acid accelerates myelin repair in demyelinated optic chiasm in mice. *Neuroscience* 2016 Mar 24;318:178-89.
- 54- Davoudi M, Azizi H, **Mirnajafi-Zadeh J**, Semnianian S., The blockade of GABAA receptors attenuates the inhibitory effect of orexin type 1 receptors antagonist on morphine withdrawal syndrome in rats. *Neuroscience Letters*, 2016 Mar 23;617:201-6.
- 55- Asgari A, Semnianian S, Atapour N, Shojaei A, Moradi-Chameh H, Ghafouri S, Sheibani V, **Mirnajafi-Zadeh J.**, Low-frequency electrical stimulation enhances the effectiveness of phenobarbital on GABAergic currents in hippocampal slices of kindled rats. *Neuroscience* 2016 May 26;330:26-38.
- 56- Ghafouri S., Fathollahi Y., Javan M., Shojaei A, Asgari A, **Mirnajafi-Zadeh J.**, Effect of low frequency stimulation on impaired spontaneous alternation behavior of kindled rats in Y-maze test. *Epilepsy Research*, 2016, 126:37-44.
- 57- Rahbardar MG, Amin B, Mehri S, **Mirnajafi-Zadeh J**, Hosseinzadeh H., Effect of alcoholic extract of aerial parts of *Rosmarinus officinalis* L. on pain, inflammation and apoptosis induced by chronic constriction injury (CCI) model of neuropathic pain in rats. *Journal of Ethnopharmacology*, 2016, 194:117-130.
- 58- Abdollahnejad F, Mosaddegh M, Nasoohi S, **Mirnajafi-Zadeh J**, Kamalinejad M, Faizi M., Study of Sedative-Hypnotic Effects of *Aloe vera* L. Aqueous Extract through Behavioral Evaluations and EEG Recording in Rats. *Iranian Journal of Pharmaceutical Research*, 2016, 15:293-300.
- 59- Gol M, Ghorbanian D, Hassanzadeh S, Javan M, **Mirnajafi-Zadeh J**, Ghasemi-Kasman M., Fingolimod enhances myelin repair of hippocampus in pentylenetetrazol-induced kindling model. *European Journal of Pharmacological Sciences*, 2016, 96:72-83.

Some National Papers:

- 1- J Mirnajafi-Zadeh, MH Pourgholami, Cellular mechanisms of seizure, *Nabz*, 10 (1997) 22-29.
- 2- J Mirnajafi-Zadeh, MH Pourgholami, Y Fathollahi, Facilitating effect of hippocampal kindling on amygdala kindling rate, *Physiology and Pharmacology*, 2 (1999) 95-103.

- 3- MR Palizvan, Y Fathollahi, S Semnianian, S Hajizadeh, J Mirnajafi-Zadeh, Chemical kindling enhances paired-pulse index in CA1 region of rat hippocampus, *Medical Journal of Modarres*, 1 (2000) 1-7.
- 4- M Rostampour, Y Fathollahi, S Semnianian, S Hajizadeh, J Mirnajafi-Zadeh, Effect of cysteamine on synaptic plasticity induced by tetanic and paired-pulse stimulation in the CA1 region of the rat hippocampus, *Physiology and Pharmacology*, 4 (2001) 119-129.
- 5- SA Rozati, J Mirnajafi-Zadeh, Y Fathollahi, M Mohammad-Zadeh, MR Palizvan, Effect of adenosine A₁ receptors activity of nucleus accumbens on amygdala Kindled Seizures in rats, *Medical Journal of Modarres*, 7 (2004) 49-59.
- 6- A Anaei, J Mirnajafi-Zadeh, Y. Fathollahi, A Amini, Effect of REM sleep deprivation on anticonvulsant effects of entorhinal cortex adenosine A₁ receptors on amygdala kindled rats, *Medical Journal of Modarres*, 6 (2004) 1-9.
- 7- S.A. Rozati, J. Mirnajafi-Zadeh, Y. Fathollahi, M. Mohammad-Zadeh, M.R. Palizvan, Effect of adenosine A₁ receptors of nucleus accumbens on the severity of amygdala kindled seizures in rats, *Medical Journal of Modares*, 7 (2004) 49-59.
- 8- T Zeinali, J Mirnajafi-Zadeh, V. Sheibani, M. Abbasnejad, M.R. Palizvan, The role of adenosine receptors in post seizure depression in rats, *Physiology and Pharmacology*, 11 (2007) 174-181.
- 9- A Shamsizadeh, V Sheibani, Y Fathollahi, M Javan, J Mirnajafi-Zadeh, MR Afarinesh, Neuronal response properties of somatosensory cortex (layer IV) are modulated following experience dependent plasticity in c-fiber depleted rats, *Physiology and Pharmacology*, 11 (2007) 91-98.
- 10- A Yadollahpour, Effect of low-frequency electromagnetic stimulation (rTMS) on kindling induced seizures in rat, *Iranian Journal of Medical Physics*, 4 (2008) 75-89.
- 11- J Mirnajafi-Zadeh, V Sheibani, MR Palizvan, M Sadegh, T Zeinali, The role of GABAA receptors activity in post-ictal depression period in the rat kindling model of epilepsy, *Journal of Semnan University of Medical Sciences*, 10 (2009) 85-94.
- 12- F Khojasteh, M Hassanpour-Ezati, J Mirnajafi-Zadeh, S Semnianian, Role of Matrix metalloproteinase II in the analgesia induced by neuronal nitric oxide inhibition in rat, *Physiology and Pharmacology*, 13 (2009) 10-17.
- 13- M Mohammad-Zadeh, J Mirnajafi-Zadeh, The role of adenosine A_{2A} receptors on perforant path kindling in rats, *Journal of Sabzevar University of Medical Sciences*, 15 (2009) 129-137.
- 14- Kiani S, Mirnajafi-Zadeh J, Shahbazi E, Baharvand H. Existence of a delayed rectifier K⁺ current in the membrane of human embryonic stem cell. *Physiology and Pharmacology*, 14 (2011) 349-357.

Books

Experimental Physiology (Translated in Persian)
Techniques in Neuroscience (Tarbiat Modares Univ. Publication, 2013)

VIII. SUPERVISION OF DISSERTATION/THESE:

21 Thesis of MSc students in Physiology and 14 Dissertation of PhD students in Physiology
1.

IX. COURSES TAUGHT:

- 1- Endocrine Physiology (For M.Sc. and Ph.D. Students of Physiology)
- 2- Renal Physiology (For M.Sc. Students of Physiology)
- 3- Neurophysiology (For M.Sc. and Ph.D. Students of Physiology)
- 4- Cell Physiology (For Ph.D. Student of Physiology)
- 5- Biophysics (For M.Sc. Students of Physiology)

6- General Physiology (For Medical Students)

X. Grants and Awards

1. The First Winner of "Young Kharazmi Scientific Festival" in Medical research (1999)
2. International Brain Research Organization School of Brain Functions in Hong Kong (December 3-16, 2000) (the grant was provided from IBRO)
3. The ICTP grant for Training and Research in Italian Laboratories (TRIL) (2006)
4. The sabbatical course in Prof. Tsumoto's lab (Lab for cortical circuit plasticity) in RIKEN/ Japan (August 2010- November 2011)
5. The research course in Prof. Tsumoto's lab (Lab for cortical circuit plasticity) in RIKEN/ Japan (June 2013-November 2013) as a visiting researcher