



Iran Goudarzi

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Education

P.h.D.: Physiology

University: **Tarbiat Modares University**

M.Sc.: Physiology

University: **Tarbiat Modares University**

B.S: Midwifery

University: **Iran Medical Scienses University**

Reasearch Experience

PhD thesis: **Study of the modification of K⁺ channels function and neuroprotective effect of riluzole and 4-AP in 3-acetylpyridine induced ataxia in rat**

MSc thesis: **Effect of Extremeley Low Frequency Pulsed Electromagnetic Fields (PEMF) on wound healing in the skin of diabetic rats**

Skills

Sharp and whole cell patch clamp recording (In vitro)

Brain slice preparation, maintanance and set up assembly

Animal model of ataxia

Working with activity monitoring and Rota-rod and Tensiometer instruments

Animal (rat) surgery

Working with stereotaxi

Abilities and Domains of Interest

Study the cellular changes in Purkinje cells in diseased states

Neuroprotection

Learning memory and stress

Membership

International Brain Research Organization (IBRO)

Iranian Society of Physiology and Pharmacology (ISPP)

Society for Neuroscience (SfN)

Japan Neuroscience Society (JNSS)

Activities

Participation in

The second Iranian congress of neural science, Tehran, IRAN, 2002

IBRO neuroscience workshop, Tehran, IRAN, Feb. 2002
Patch Clamp pregress workshop, Tehran, IRAN, by Prof. Alasdair Gibb
Pregress workshop of developmental neuroscience, Tehran, IRAN, by Prof. John Nicholls
Giving lecture about the subject of my thesis in 16th Congress of physiology, IRAN
The second FAONS symposium, Tehran, IRAN, May 2004
6th IBRO associate school of neuroscience as an instructor, IRAN, September 2006
IBRO associate school of neuroscience, Thailand 2008
Meeting of neuroscience, Neuro2010, Japan
8th IBRO world congress of Neuroscience. Italy, July, 2011

Publications

- 1-Goudarzi, I. Kaffashian, M. R. Janahmadi, M. Fatholahi, Y. Hajizadeh, S. *Enhancement of Purkinje neuronal excitability by the inhibition of fast voltage gated K⁺ channel function in ataxic rats.* Yakhteh Medical journal. 2007; 9(4): 232-239 (persian)**
- 2-Fereidoni, M. Fatholahi Y. Janahmadi M. and **Godarzi, I.** *A rapid and non leaky way for preparation of the sharp intracellular recording microelectrodes.* J. Biochem. Biophys. Methods. 2008; 70(6); 1124-1129**
- 3-Janahmadi, M. **Goudarzi, I.** Kaffashian, M. R. Behzadi, G. Fatholahi, Y. Hajizadeh, S. *Co-treatment with riluzole, a neuroprotective drug, ameliorates the 3-acetylpyridine-induced neurotoxicity in cerebellar Purkinje neurons of rats: Behavioural and electrophysiology evidence.* NeuroToxicology. 2009; 30 : 393-402**
- 4-Goudarzi, I. Hajizadeh, S. Salmani S.M. and Abrari K. *Pulsed electromagnetic fields accelerate wound healing in the skin of diabetic rats.* Bioelectromagnetics. 2010 May; 31(4):318-23**
- 5-Goudarzi I, Kaffashian M, Shabani M, Haghdoost-Yazdi H, Behzadi G, Janahmadi M. *In vivo 4-aminopyridine treatment alters the neurotoxin 3-acetylpyridine-induced plastic changes in intrinsic electrophysiological properties of rat cerebellar Purkinje neurones.* Eur J Pharmacol. 2010 Sep 10; 642(1-3):56-65**
- 6- Kaffashian M, Shabani M, **Goudarzi I,** Behzadi G, Zali A, Janahmadi M. *Profound alterations in the intrinsic excitability of cerebellar Purkinje neurons following neurotoxin 3-acetylpyridine (3-AP)-induced ataxia in rat: new insights into the role of small conductance K⁺ channels.* Physiol Res. 2011;60(2):355-65.**
- 7- Ramezani A, **Goudarzi I***, Lashkarbolouki T, Ghorbanian MT, Elahdadi Salmani M, Abrari K. *Neuroprotective effects of the 17 β -estradiol against ethanol-induced neurotoxicity and oxidative stress in the developing male rat cerebellum: Biochemical, histological and behavioral changes.* Pharmacology, Biochemistry and Behavior 100 (2011) 144–151.**
- 8-Rahimi Shoormasti F, **Goudarzi I,** Lashkarbolouki T, Abrari K, Elahdadi Salmani M, Goudarzi A. *Effects of riluzole on harmaline induced tremor and ataxia in rats: Biochemical, histological and behavioral studies - European Journal of .* Eur J Pharmacol. 2012 Nov 15;695(1-3):40–7.**
- 9- Alijan-pour J, Abrari K, Lashkarbolouki T, Ghorbanian MT, **Goudarzi I,** Elahdadi Salmani M. *Ethanol disrupts reactivated contextual conditioned fear memory: Behavioral and Histological perspective - Cell J.* 2012 Winter;13(4):265-74.**
- 10-Ramezani A, **Goudarzi I,** Lashkarbolouki T, Ghorbanian MT, Salmani ME, Abrari K . *Role of oxidative stress in ethanol-induced neurotoxicity in developing cerebellum - Iranian Journal of Basic medical sciences.* 2012; 15 (4), 965 .**

- 11-Mirshekar M, Abrari K, Rashidy-pour A, **Goudarzi I**. Effects of β -estradiol on enhanced conditioned fear induced by single prolonged stress and shock in rats. *Basic and Clinical Neuroscience Journal*. 2012; 3 (2), 5-11.
- 12-Mirshekar M, Abrari K, Rashidy-pour A, **Goudarzi I**. Evaluation of β -Estradiol's effect after post-traumatic stress disorder (PTSD) induction by modified single-prolonged stress model in male rat - *Journal of Gorgan University of Medical Science* - January, 2012 .
- 13-Mirshekar M, Abrari K, **Goudarzi I**, Rashidy-Pour A. Systemic administrations of β -estradiol alleviate both conditioned and sensitized fear responses in an ovariectomized rat model of post-traumatic stress disorder. *Neurobiol Learn Mem*. 2013 May;102:12-9.
- 14-Modir F, Elahdadi Salmani M, **Goudarzi I**, Lashkarboluki T, Abrari K. Prenatal stress decreases spatial learning and memory retrieval of the adult male offspring of rats. *Physiol Behav*. 2014 Apr 22;129:104-9
- 15-Pajand P, Elahdadi Salmani M, Shajiee H, Abiri H, **Goudarzi I**, Abrari K. Stress during first pregnancy increases seizure threshold in adult male offspring. *Iran J Basic Med Sci*. 2014 Jan;17(1):34-40.
- 16-Firozan B, **Goudarzi I**, Elahdadi Salmani M, Lashkarbolouki T, Rezaei A, Abrari K. Estradiol increases expression of the brain-derived neurotrophic factor after acute administration of ethanol in the neonatal rat cerebellum. *Eur J Pharmacol*. 2014 Jun 5;732:1-11.
- 17-Mohammadi HS, **Goudarzi I**, Lashkarbolouki T, Abrari K, Elahdadi Salmani M. Chronic administration of quercetin prevents spatial learning and memory deficits provoked by chronic stress in rats. *Behav Brain Res*. 2014 Aug 15;270:196-205.
- 18-Shourmasti FR, **Goudarzi I**, Abrari K, Salmani ME, Lashkarbolouki T. Riluzole Ameliorates Harmaline-induced Tremor in Rat. *Basic Clin Neurosci*. 2014 Spring;5(2):138-43.
- 19- Abiri H, Elahdadi-Salmani M,* Sharafi Sh, Pajand P, **Goudarzi I**, Abrari K. Differential Effect of Swimming Stress and Exercise Models in Pentylentetrazol Induced Kindling of Rats. *ZJRMS* 2014; 16(12): 65-69
- 20-Goudarzi E, Elahdadi Salmani M, Lashkarbolouki T. **Goudarzi I**. Hippocampal orexin receptors inactivation reduces PTZ induced seizures of male rats. *Pharmacol Biochem Behav*. 2015 Jan 17;130C:77-83
- 21- Bazrgar M, **Goudarzi I**,* Abrari K, Elahdadi-Salmani M, Lashkarbolouki T. Effect of Postnatal Chronic Lead Exposure on Spatial Learning and Memory in Male Rat. *ZJRMS* 2015 Sep; 17(9): 12-15
- 22- **Goudarzi I**,* Lashkarbolouki T, Khorshidi M, Ghorbanian MT. Effect of Wound Dressing with Fresh Kiwifruit on healing of Cutaneous Wound in Rats. *ZJRMS* 2015; 17(3): 21-24
- 23- Ghasemi M, Abrari K*, **Goudarzi I***, Rashidy-pour A, Elahdadi Salmani M. Effect of Cannabinoid Receptor Agonist WIN55, 212-2 on the Anxiety Induced By PTSD in Male Rats. *Physiology and Pharmacology*, 18 (3), 259-270.
- 24-Goudarzi E, Elahdadi Salmani M*, Lashkarbolouki T, Goudarzi I. Time dependent hippocampal glutamate and GABA change following Pentylentetrazol induced convulsions in rat. *Arak Medical University Journal (AMUJ)* 2014; 17(90): 77-85
- 25- Bazrgar M, **Goudarzi I***, Lashkarbolouki T, Elahdadi Salmani M, Abrari K. Effect of Postnatal Lead Exposure on the Male Rats Cerebellum: Histological and Behavioral Evaluation. *Journal of Knowledge & Health* 2015; Vol 9, No 4
- 26- Bagheri F, **Goudarzi I***, Lashkarbolouki T, Elahdadi Salmani M. Melatonin prevents oxidative damage induced by maternal ethanol administration and reduces homocysteine in the cerebellum of rat pups. *Behavioral Brain Research* 287 (2015) 215-225.
- 27- Bazrgar M, **Goudarzi I***, Lashkarbolouki T, Elahdadi Salmani M. Melatonin ameliorates oxidative damage induced by maternal lead exposure in rat pups. *Physiology & Behavior* 151 (2015) 178-188.

- 28- Saffari Sh, Abrari K*, Goudarzi I, Rezaei A, Rashidy-Pour A, Elahdadi Salmani M. **Effects of β -Estradiol on the level of Bcl2/BAX Expression in the Rat Hippocampus, after Induction of Post-Traumatic Stress Disorder (PTSD).** *Journal of Knowledge & Health* 2015; Vol 10, No 1.
- 29- Koohpayma1 H, Goudarzi I*, Elahdadi Salmani M, Abrari K, Lashkarbolouki T. **The Effect of Quercetin on Skin Wound Healing in Dexamethasone-Treated Rats.** *Arak Medical University Journal (AMUJ)*. 2015; 18(104): 66-73. (Persian).
- 30- Soleimani E, Goudarzi I*, Abrari K **, Lashkarbolouki T. **The combined effects of developmental lead and ethanol exposure on hippocampus dependent spatial learning and memory in rats: Role of oxidative stress.** *Food Chem Toxicol*. 2016 Oct;96:263-72.
- 31- Ozbaki J, Goudarzi I, Salmani ME, Rashidy-Pour A. **Acute stress does not affect the impairing effect of chronic stress on memory retrieval.** *Iran J Basic Med Sci*. 2016 Jul;19(7):763-71.
- 32- Mokhtarpour M, Elahdadi Salmani M, Lashkarbolouki T, Abrari K, Goudarzi I. **Lateral hypothalamus orexinergic system modulates the stress effect on pentylenetetrazol induced seizures through corticotropin releasing hormone receptor type 1.** *Neuropharmacology*. 2016 Nov;110(Pt A):15-24.
- 33- Soleimani E, Goudarzi I*, Abrari K , Lashkarbolouki T. **Study of Melatonin Protective Effects on Learning and Memory Deficits Induced by Administration of Lead during Pregnancy and Postpartum in Rat: Behavioral and Biochemical Evaluations.** *Arak Medical University Journal (AMUJ)*. 2016; 19(107): 35-48. (Persian).
- 34- Sargolzehi A, Abrari K*, Elahdadi Salmani M, Goudarzi I. **Effects of melatonin on anxiety- like behaviors induced by post-traumatic stress disorder in rat.** *Koomesh*. Winter 2016, 17 (2); 479-485.
- 35- Sarfi M, Elahdadi Salmani M, Goudarzi I, Lashkar Boluki T, Abrari K. **Evaluating the role of astrocytes on β -estradiol effect on seizures of Pilocarpine epileptic model.** *Eur J Pharmacol*. 2017 Feb 15;797:32-38.
- 36- Soleimani E, Goudarzi I*, Abrari K , Lashkarbolouki T. **Maternal administration of melatonin prevents spatial learning and memory deficits induced by developmental ethanol and lead co-exposure.** *Physiol Behav*. 2017 May 1;173:200-208.
- 37- Arzhang A, Elahdadi Salmani M, Lashkarbolouki T, Goudarzi. **Posterior hypothalamus glutamate infusion decreases pentylenetetrazol-induced seizures of male rats through hippocampal histamine increase.** *Pharmacol Biochem Behav*. 2017 May 8;158:7-13.
- 38- Malihe Ghasemi, Kataneh Abrari, Iran Goudarzi, Ali Rashidy-Pour. **Effect of WIN55-212-2 and Consequences of Extinction Training on Conditioned Fear Memory in PTSD Male Rats.** *Basic and Clinical Neuroscience*, 2017: 8 (6), 493-502.
- 39- Malihe Nakhaeifard, Maryam Haji Ghasem Kashani, Iran Goudarzi, Arezou Rezaei. **Conditioned Medium Protects Dopaminergic Neurons in Parkinsonian Rats.** *Cell J (Yakhteh)*; 2018, 20 (3).

Conference

1. Kaffashian M, Shabani M, **Goudarzi I**, Behzadi G, Zali A, Janahmadi M. **Profound alterations in the intrinsic excitability of cerebellar Purkinje neurons following neurotoxin 3-acetylpyridine-induced ataxia in rat: new insights into the role of small conductance K⁺ channels** - 8th IBRO world congress of Neuroscience, Italy, July, 2011.
2. Ramezani A, **Goudarzi I***, Lashkarbolouki T, Ghorbanian MT, Elahdadi Salmani M, Abrari K. **Neuroprotective effects of the 17 β -Estradiol against ethanol-induced neurotoxicity** - 8th IBRO world congress of Neuroscience. Italy, July, 2011.
3. Goudarzi I. **Contribution of BK Channel in firing pattern Characteristic of ataxic Purkinje neurons** - Neuro2010, Japan, September, 2010.
4. Rahimi Shourmasti F, Goudarzi I, Lashkarbolouki T, Abrari K, Elahdadi Salmani M. **Neuroprotective effects of riluzole on harmaline-induced tremor in rat** - Physiology and Pharmacology Congress. 2011
5. Mirshekar M, Abrari K, Rashidipour A, Goudarzi I. **Behavioral comparison of PTSD induction by modified single prolonged stress in male and ovariectomized female rats.** International Congress On Applied Biology, 2011, Mashhad .

6. Mirshekar M, Abrari K, Rashidy-pour A, Goudarzi, I. **Systemic Administrations of β -Estradiol Alleviate Conditioned Fear Response in a Rat Model of Post-traumatic Stress Disorder.** IBRO-APRC School of Neuroscience. Beijing, China . October, 2011 .
7. Mirshekar M, Abrari K, Rashidy-pour A, Goudarzi I. **The effects of β -Estradiol on PTSD induction in male rats: behavioral perspective** - 20th Iranian congress of Physiology and Pharmacology. Hamedan, Iran . October, 2011.
8. Elahdadi Salmani M, Goudarzi I, Ramazani A, Lashkarboluki T, Ghorbanian MT, Abrari K. **Role of oxidative stress in ethanol-induced neurotoxicity of neonatal cerebellum** - 8th IBRO world congress of Neuroscience, Italy. July, 2011
9. Goudarzi E, Elahdadi salmani M, Mokhtarpour M, Goudarzi I, Abrari K. **Intravenous optimum dose of PTZ tonic-clonic seizures in male rats.** 21st international Iranian Congress of Physiology & Pharmacology. Tabriz, Iran. 2013
10. Mokhtarpour M, Elahdadi Salmani M, Goudarzi E, Goudarzi I, Abrari K. **Evaluation the Effect of acute mild foot shock stress on PTZ-induced convulsions in male rats.** 21st international Iranian Congress of Physiology & Pharmacology. Tabriz, Iran. 2013
11. Mokhtarpour M, Elahdadi Salmani M, Goudarzi I, Abrari K. **Evaluation the Effect of acute stress on PTZ-induced convulsions in adrenalectomized male rats.** 2nd Basic and Clinical Neuroscience Congress 2013.
12. Sarfi, M , Elahdadi salmani, M , Goudarzi, I , Lashkarbolouki, T. **Ceftriaxone reduced seizure intensity caused by Pentylenetetrazole in rat.** . BCNC , Tehran. Iran. 2014.
13. Arzhang, A , Elahdadi salmani, M , Goudarzi, I , Lashkarbolouki, T. **Evaluation the role of posterior hypothalamic orexin receptor-2 on histaminergic system anticonvulsant effect.** BCNC , Tehran. Iran. 2014.
14. Sarfi, M., Elahdadi Salmani, M., Goudarzi, I., Lashkarboluki, T. Abrari, K. **The Role of astrocytes in beta-estradiol effects on epilepsy: changes in hippocampal glutamate.** GCNN Congress. Tehran. Iran. 2015
15. Sargolzehi A, Abrari K, Elahdadi Salmani M , Goudarzi I. **Comparison of two animal models of Post Traumatic Stress Disorder in rats.** 21st international Iranian Congress of Physiology & Pharmacology. Tabriz, Iran. 2013
16. Ghasemi M, Saffari Sh, Abrari K, Goudarzi I. **Evaluation of conditioned fear extinction in post-traumatic stress disorder.** 21st international Iranian Congress of Physiology & Pharmacology. Tabriz, Iran. 2013
17. Amerian F, Abrari K, Goudarzi I. **Comparison of estradiol effects on different stages of memory extinction in PTSD induced by two different models.** 2nd Basic and Clinical Neuroscience Congress 2013. Tehran. Iran.
18. Afshar F, Abrari K, Goudarzi I. **Effects of cannabis sativa seed extract on different stages of extinction of conditioned fear memory in PTSD male rats.** 2nd Basic and Clinical Neuroscience Congress 2013. Tehran. Iran.