

RESUME

Laboratory for Cortical
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Mir Shahram Safari

Mir Shahram Safari

PERSONAL

Name: Mir Shahram
Surname: Safari
Title: Dr.
Father's name: Mir Hamzeh
Place of birth: Oroumieh, IRAN
Date of birth: 12.12.1973
Nationality: Iranian
Gender: Male
Marital status: Married (one son)
Passport no: R19212190
Date of issue: 20/09/2010
Date of expiry: 20/09/2015

EDUCATIONAL QUALIFICATIONS

2004 – 2010	Ph.D. in Physiology (Major), Neurophysiology (Minor), Tarbiat Modares University (TMU) (Dissertation = 19.80/20)	Tehran, Iran
1999-2002	M.Sc. in Physiology, Tehran University of Medical Sciences (TUMS) (GPA = 17.58/20)	Tehran, Iran
1992–1996	B.Sc. in Nursing, Urmia University of Medical Sciences (OUMS) (GPA = 17.48/20 Honored)	Urmia, Iran

SCHOLARSHIPS & AWARDS

International Brain Research Organization (IBRO) *Return Home Program* (RHP), 2014.

Asian-Pacific Society for Neurochemistry (APSN) *travel award* for presenting a talk in 12th meeting APSN, August 23-26 2014, Kaohsiung, Taiwan.

Gratis membership of Asian-Pacific Society for Neurochemistry (APSN) for two years (2014-2016).

IBRO alumni award to present lecture in IBRO symposium in 43rd annual meeting of sfn, Nov 9-13, 2013 San Diego, California.

Post-Doctoral fellow in Laboratory for Cortical Circuit Plasticity, Brain Science Institute (BSI), RIKEN from Jan 2012, Wako, Japan.

2011B Asia-Pacific Regional Committee (APRC)-*IBRO Exchange Fellowship* to spend six months at the Brain Science Institute (BSI), RIKEN, Wako, Japan.

IBRO Young Investigator Training Program Fellowship for funding to participate in the program in one of the hosting laboratories in Europe for 4 weeks (Prof. Pistis lab in University of Cagliari, Italy), June-July 2011 and participate in 8th world congress of IBRO, Florence, Italy, July 14-19, 2011.

IBRO-FOANS Travel Award to participate in *5th Congress of the Federation of Asian-Oceanian Neuroscience Societies (FAONS)*, Lucknow, India, Nov 25th to 28th, 2010.

IBRO Award to participate in IBRO *Advanced School of Neuroscience*, 6th Symposium of the Asian Biophysics Association & 27th Annual Meeting of the Hong Kong Society of Neurosciences, Hong Kong, Jan 6-17, 2009.

Federation of Asian and Oceanic Physiological Societies (FAOPS) Travel Award: *6th Congress of Federation of Asian and Oceanic Physiological Societies (FAOPS)* Seoul, South Korea, October 16-18, 2006.

IBRO *Fellowship of Associate School of Neuroscience*: 3rd Asia-Pacific Region Associate School of Neuroscience, Cochin, India, September 12-17, 2004.

PROFESSIONAL AFFILIATIONS

1. Asian-Pacific Society for Neurochemistry (APSN), 2014-present.
2. Iranian Neuroscientists Community (IRNSC), 2013-present.
3. Society for Neuroscience (SFN), USA, 2012-present.
4. Japan Neuroscience Society (JNS), 2012-present.
5. International Brain Research Organization (IBRO), 2002 – present.
6. International Society of Cell Death (ISCD), 2005 – present.
7. Biotechnologists Society of India, 2004 – present.
8. Iranian Society of Neuroscience (ISN), 2003 – present.
9. Federation of Asian-Oceanic Neuroscience Societies (FAONS), 2004-present.
10. Federation of Asian-Oceanic Physiological Societies (FAOPS), 2006-present.
11. Iranian Society of Physiology & Pharmacology (IRSP), 2002 – present.
12. Knowledge Diffusion Network, Canada, 2004 – present.

PUBLICATIONS

Publications in Peer-Reviewed Journals:

1. Rui Kimura *, **MIR-SHAHRAM SAFARI***, J Mirnajafi-Zadeh, Rie Kimura, T Ebina, Y Yanagawa, K Sohya, T Tsumoto "Curtailing effect of awakening on Visual responses of cortical cholinergic Neurons by activation of inhibitory Circuits" *The Journal of Neuroscience*, 23 July 2014, 34(30): 10122-10133; doi: 10.1523/JNEUROSCI.0863-14.2014.
2. Abdolrahman Sarihi, Javad Mirnajafi-Zadeh, Bin Jiang, Kazuhiro Sohya, **MIR-SHAHRAM SAFARI**, Masoumeh Kourosh Arami, Yuchio Yanagawa and Tadaharu Tsumoto; Cell type-specific, presynaptic LTP of inhibitory synapses on fast-spiking GABAergic neurons in the mouse visual cortex; *Journal of Neuroscience*, 32(38), September 19, 2012, 13189 –13199.
3. Shiva Nasiraei-Moghadam, Amin Sherafat, **MIR-SHAHRAM SAFARI**, Fatemeh Moradi, Abolhassan Ahmadiani, Leila Dargahi; Reversal of Prenatal Morphine Exposure-Induced Memory Deficit in Male But Not Female Rats; *Journal of Molecular Neuroscience*, May 2013, Volume 50, Issue 1, pp 58-69.
4. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnani, Abolhassan Ahmadiani, "Role of Orexin-A receptors within the Locus Coeruleus in antinociception induced by microinjection of carbachol into the lateral hypothalamus" *Physiology & Pharmacology*, Vol. 15, No. 1, Spring 2011, 47-56.
5. Zahra Taslimi, Abbas Haghparast, Majid Hassanpour-Ezatti, **Mir-Shahram Safari**, Lateral hypothalamus chemical stimulation -induced conditioned place preference in the rat: involvement of OX1 and CB1 receptors in the ventral tegmental area, *Behavioral Brain Research*, 217, 2010, 41-46.
6. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnani, Effect of lidocaine administration at the nucleus locus coeruleus level on lateral hypothalamus-induced antinociception in the rat; *Pharmacology, Biochemistry and Behavior*, 92, 2009, 629–634.
7. **Safari M.Sh.**, Faghihi M., Kadkhodayi M., Parviz M., Farzami B., The effect of renal ischemia-reperfusion on hydroxyl radical production and plasma concentration of copper and zinc: an in vivo study, *Physiology and Pharmacology*, Vol. 8, No. 1, Spring & Summer 2004.

*These authors contributed equally to this work.

MANUSCRIPTS UNDER PEER REVIEW AND PREPARATION

1. **Mir-Shahram Safari**, Seyyed-Javad Mirnajafi-zadeh, Tadaharu Tsumoto; Parvalbumin interneurons can act solo while somatostatin interneurons act in chorus on cortical pyramidal cells, in preparation, in preparation.
2. **Mir-Shahram Safari**, Sina Farahmand, Hanif Vahedian, Maziar Abedinkhan Eslami, Abbas Haghparast, Amir M. Sodagar; A Telemetry System for Microstimulation and plasticity induction in various areas of central nervous system in freely moving rat; in preparation.

3. Sina Farahmand, Hanif Vahedian, Maziar Abedinkhan Eslami, **Mir-Shahram Safari**, Abbas Haghparast, Amir M. Sodagar; Wearable, Battery-Powered, Wireless, Programmable 8-Channel Neural Stimulator; in preparation.
4. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnani, Abolhassan Ahmadiani, Orexin A-induced antinociception in the locus coeruleus originates from the lateral hypothalamus; in preparation.

INVITED TALKS

1. **Mir-Shahram Safari**, "Optogenetic approaches for deciphering cell-type specific inhibition of visual responses in primary visual cortex", 4th Basic and Clinical Neuroscience Congress, 23-25 Dec 2015, Tehran, Iran.
2. **Mir-Shahram Safari**, "Optogenetic and two-photon laser scanning microscopy approaches for functional mouse brain mapping", 2nd Iranian Brain Mapping Congress, 14-16 Nov 2015, Tehran, Iran.
3. **Mir-Shahram Safari**, "Inhibition in primary visual cortex from "Brain Activity Mapping" perspective, School of Advanced Technologies in Medicine, Tehran University of Medical Sciences, 28 Oct 2015, Tehran, Iran.
4. **Mir-Shahram Safari**, "Cell type-specific inhibition in primary visual cortex", Institute for Brain and Cognitive Sciences, Shahid Beheshti University, 25 Oct 2015, Tehran, Iran.
5. **Mir-Shahram Safari**, "Shaping visual responses in primary visual cortex through cell type-specific inhibition", Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, 5 Oct 2015, Tehran, Iran.
6. **Mir-Shahram Safari**, "Shaping visual responses in primary visual cortex through cell-type specific inhibition", Institute for Advanced Studies in Basic Science, 6 September 2015, Zanjan, Iran
7. **Mir-Shahram Safari**, Inhibition in visual cortex, 9th annual symposium of Academic Society of Iranians in Japan (ASIJ), 18-19 April 2015, Tokyo, Japan.
8. **Mir-Shahram Safari**, R. Kimura, T. Tsumoto, "Cholinergic activation of inhibitory circuits mediates awakening effects on visual responses of cortical neurons" the 12th meeting of the Asian-Pacific Society for Neurochemistry (APSN2014), August 23-26 2014, Kaohsiung, Taiwan, Journal of Neurochemistry, 130:19-19.
9. **Mir-Shahram Safari**, "Inhibition shapes visual responses in primary visual cortex" 43rd annual meeting of sfn, Nov 9-13, 2013 San Diego, California, USA.
10. **Haghparast Abbas**, Safari Mir-Shahram, Sleep and Pain, Full article in supplement of 10th Annual Scientific Meeting of Iranian Pain Society (IPS), May 13 - 14, 2010, Tehran, Iran.
11. Mir Shahram Safari, Abbas Haghparast, Abolhassan Ahmadiani, **Saeed Semnani**, "Locus Coeruleus and Pain" proceeding in 1st South Asian Conference of Physiological Societies & 11th Biennial Conference of Pakistan Physiological Society, Pakistan Journal of Physiology, V.4, No.1 (Suppl), November 10-12, 2008, Islamabad, Pakistan.

ORAL PRESENTATIONS

1. **Mir-Shahram Safari**, Tadaharu Tsumoto, "Functional connections from GABAergic to pyramidal neurons of the mouse visual cortex in vivo, as revealed by double whole-cell recordings combined with optogenetics", The 38th Annual Meeting of the Japan Neuroscience Society, July 28-31, 2015, Kobe, Japan.
2. **Mir-Shahram Safari** and Tadaharu Tsumoto; Quantitative analysis of inhibitory functional connections from GABAergic to pyramidal neurons in the mouse visual cortex, an in vivo double whole-cell recording study with optogenetics; Bridging Biomedical Worlds: From Neural Circuitry to Neurotechnology, May 11-12 2015, Tokyo, Japan.
3. **Mir-Shahram Safari**, Inhibition in visual cortex, 9th annual symposium of Academic Society of Iranians in Japan (ASIJ), 18-19 April 2015, Tokyo, Japan.
4. **Mir-Shahram Safari** and Tadaharu Tsumoto; Functional connections from GABAergic to pyramidal neurons of the mouse visual cortex in vivo; 101st brain lunch seminar of RIKEN-BSI, Dec 18 2014, Japan.
5. **Mir-Shahram Safari**, R. KIMURA, T. TSUMOTO; "An optogenetic and double whole-cell recording analysis of functional connections from GABAergic to pyramidal neurons in layer 2/3 of the mouse visual cortex, *in vivo*" 44th annual meeting of SfN, November 15-19, 2014, Washington DC, USA.
6. **Mir-Shahram Safari**, R. Kimura, T. Tsumoto, "Cholinergic activation of inhibitory circuits mediates awakening effects on visual responses of cortical neurons" the 12th meeting of the Asian-Pacific Society for Neurochemistry (APSN2014), August 23-26 2014, Kaohsiung, Taiwan.
7. **Mir-Shahram Safari**, "Inhibition shapes visual responses in primary visual cortex" 43rd annual meeting of sfn, Nov 9-13 2013 San Diego, California.
8. **Mir-Shahram Safari**, Rui Kimura, Kazuhiro Sohya, Teppei Ebina, Yuchio Yanagawa and Tadaharu Tsumoto; Differential cholinergic effects on visual responses of inhibitory and excitatory cortical neurons; 78rd brain lunch seminar of RIKEN-BSI, Oct 17 2013, Japan.
9. **Shiva Nasiraei-Moghadam**, Amin Sherafat, Mir-Shahram Safari, Abolhassan Ahmadiani, Ali Haeri, Leila Dargahi, "Sexual Maturation Repairs Prenatal Morphine Exposure Induced Memory Deficit in Male but not Female Rats"

- proceeding in 1st Iranian National Symposium of Neuroscience, 16-17 February 2011, Gorgan, Iran.
10. **Zahra Taslimi**, Majid Hassanpour-Ezzati, Mir-shahram Safari, Abbas Haghparast, “Changes of CREB phosphorylation in the ventral tegmental area, prefrontal cortex and hippocampus after lateral hypothalamus stimulation induced conditioned place preference” proceeding in 1st Iranian National Symposium of Neuroscience, 16-17 February 2011, Gorgan, Iran.
 11. **Haghparast Abbas**, Safari, Mir-Shahram, Sleep and Pain, Full article in supplement of 10th Annual Scientific Meeting of Iranian Pain Society (IPS), May 13 - 14, 2010, Tehran, Iran.
 12. Mir Shahram Safari, Abbas Haghparast, Abolhassan Ahmadiani, **Saeed Semnanian**, “Locus Coeruleus and Pain” proceeding in 1st South Asian Conference of Physiological Societies & 11th Biennial Conference of Pakistan Physiological Society, Pakistan Journal of Physiology, V.4, No.1 (Suppl), November 10-12, 2008, Islamabad, Pakistan.
 13. **Mir Shahram Safari**, Fereshteh Motamedi, "Endogenous LTP impairs LTP induction in Hippocampal Dentate Gyrus of Morphine dependent anesthetized rats" proceeding in 18th Iranian congress of Physiology and Pharmacology, August 26-30, 2007 Mashhad, Iran.
 14. **Mir Shahram Safari**, Fereshteh Motamedi; “Morphine addiction alters recurrent inhibition responses in hippocampal Dentate gyrus neurons in rats” proceeding in 17th Iranian congress of Physiology and Pharmacology, Oct 1-4, 2005, Kerman, Iran.
 15. **Safari M.Sh.**, Faghihi M., Kadkhodayi M., Parviz M., Farzami B., Deferroxamine and Neocuproine effects on Hydroxyl radical formation and plasma Zn and Cu concentration in rat renal ischemia reperfusion In vivo, proceeding in 16th Iranian congress of Physiology and Pharmacology, May 9-13, 2003, Tehran, Iran.

POSTER PRESENTATIONS

1. **Mir-Shahram Safari**, Tadaharu Tsumoto, “Functional connections from GABAergic to pyramidal neurons of the mouse visual cortex in vivo, as revealed by double whole-cell recordings combined with optogenetics”, The 38th Annual Meeting of the Japan Neuroscience Society, July 28-31, 2015, Kobe, Japan.
2. **Mir-Shahram Safari**, Tadaharu Tsumoto, “Functional connections from GABAergic to pyramidal neurons in layer 2/3 of the mouse visual cortex, *in vivo*” International symposium of Vision, Memory, Thought: how cognition emerges from neural network; December 6-7 2014; Tokyo, Japan.
3. **Mir-Shahram Safari**, Javad Mirnajafi-Zadeh, Rui Kimura, Kazuhiro Sohya, Teppei Ebina, Yuchio Yanagawa and Tadaharu Tsumoto; Differential cholinergic effects on visual responses of inhibitory and excitatory cortical neurons, an *in vivo* whole-cell patch clamp study, 16th RIKEN BSI Retreat, Nov 21-22 2013, Karuizawa, Nagano, Japan.
4. Rui Kimura, Kazuhiro Sohya, **Mir-Shahram Safari**, Teppei Ebina, Yuchio Yanagawa and Tadaharu Tsumoto; Differential waking effects on visual responses of inhibitory and excitatory cortical neurons through the basal forebrain cholinergic system: in vivo two photon imaging study; 16th RIKEN BSI Retreat, Nov 21-22 2013, Karuizawa, Nagano, Japan.
5. **Mir-Shahram Safari**, R. Kimura, K. Sohya, T. Ebina, Y. Yanagawa, T. Tsumoto, “Differential awakening effects on visual responses of inhibitory and excitatory cortical neurons through the basal forebrain cholinergic system.” proceeding in The Networked Brain: satellite meeting of 43rd annual meeting of sfn, Nov 7-8, 2013, San Diego, California, USA
6. R. Kimura, **Mir-Shahram Safari**, K. Sohya, T. Ebina, Y. Yanagawa, T. Tsumoto, “Differential waking effects on inhibitory and excitatory neurons in visual cortex, revealed by in vivo two-photon functional imaging” proceeding in 43rd annual meeting of sfn, Nov 9-13, 2013, San Diego, California, USA.
7. Z. TASLIMI, P. AZIZI, M. HASSANPOUR-EZATTI, **M.-S. SAFARI**, A. HAGHPARAST “Microinjection of cannabinoid CB1 receptor antagonist AM251 into the ventral tegmental” proceeding in 41rd annual meeting of sfn, Nov 12-16, 2011, Washington DC, USA.
8. area could inhibit the lateral hypothalamus stimulation-induced conditioned place preference
9. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnanian, Abolhassan Ahmadiani, “The interaction between orexin and cannabinoid systems in locus coeruleus on pain modulation” proceeding in 8th International Brain Research Organization (IBRO) World Congress of Neuroscience, July 14-18, 2011, Florence, Italy.
10. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnanian, Abolhassan Ahmadiani, “Role of Orexin-A receptors within the Locus Coeruleus in antinociception induced by microinjection of carbachol into the lateral hypothalamus” proceeding in 5th Federation of Asian- Oceanic Neuroscience Societies (FANOS) Symposium, November 25-28, 2010, Lucknow, India
11. Zahra Taslimi, Mahmoudreza Ramin, Pegah Azizi, Fariba Khodaghali, **Mir-Shahram Safari**, Majid Hassanpour-Ezzati, Abbas Haghparast, “Changes of CREB, ERK and c-fos in ventral tegmental area after conditioned place preference induced by administration of carbachol into the lateral hypothalamus” proceeding in 5th Federation of Asian- Oceanic Neuroscience Societies (FANOS) Symposium, November 25-28, 2010, Lucknow, India.
12. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnanian, “Effect of Reversible Inactivation of the Nucleus Locus

- Coeruleus on Lateral Hypothalamus Induced Antinociception in the Rat” proceeding in 40th Annual meeting of Neuroscience, San Diego, CA, November 13 - 17, 2010.
13. Zahra Taslimi, Majid Hassanpour-Ezatti, **Mir-Shahram Safari**, Pegah Azizi, Abbas Haghparast “Blockade of orexin-A receptor in the ventral tegmental area suppressed the development of conditioned place preference induced by chemical stimulation of the lateral hypothalamus in the rats” proceeding in 40th Annual meeting of Neuroscience, San Diego, CA, November 13 - 17, 2010.
 14. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnani, Abolhassan Ahmadiani, “The effect of nucleus locus coeruleus inactivation on antinociception induced by the lateral hypothalamus inactivation” proceeding in 7th FENS forum of EUROPEAN NEUROSCIENCE, July 3-7, 2010, Amsterdam, the Netherlands.
 15. Abbas Haghparast, **Mir-Shahram Safari**, Saeed Semnani, Abolhassan Ahmadiani, “Lateral Hypothalamus stimulation-induced antinociception is mediated in part by Locus Coeruleus neurons” proceeding in 7th FENS forum of EUROPEAN NEUROSCIENCE, July 3-7, 2010, Amsterdam, the Netherlands.
 16. **Mir-Shahram Safari**, Abbas Haghparast, Saeed Semnani, “Effect of Reversible Inactivation of the Nucleus Locus Coeruleus on Lateral Hypothalamus Induced Antinociception in the Rat” proceeding in 6th Symposium of the Asian Biophysics Association & 27th Annual Meeting of the Hong Kong Society of Neurosciences, January 11-15, 2009, The Hong Kong University Of Science And Technology, Hong Kong.
 17. **Mir Shahram Safari**, Fereshteh Motamedi, "Effect of Morphine Addiction on LTP Induction and Paired-Pulse Stimulation Responses in Hippocampal Dentate Gyrus Neurons", proceeding in 6th Congress of Federation of Asian and Oceanic Physiological Societies (FAOPS), October 16-18, 2006, Seoul, South Korea, KOREAN JOURNAL OF PHYSIOLOGY AND PHARMACOLOGY, 10, P.
 18. **Mir Shahram Safari**, Hasan Emami; “Strategic planning of Neuroscience Research Center” ” Proceeding in Symposium of University and future Twenty years perspective of IRAN Development, March 10, 2005, SBMU, Tehran, Iran.
 19. R.Lashgari, **M.Sh. Safari**, F. Motamedi, S.Zahedi ASL. “The effect of chronic oral administration of verapamil on learning and retrieval in rats using passive avoidance learning task.” proceeding in 2th Federation of Asian- Oceanic Neuroscience Societies (FANOS) Symposium and 3th Iranian Neuroscience Congress, May 16-19, 2004, Tehran-Iran, Iranian Journal of Pharmaceutical Research, 61-6.
 20. **Safari M.Sh.**, Faghihi M., Kadkhodayi M., Parviz M., Farzami B., Formation of 2,5 Dihydroxy Benzoic Acid by Salicylate trapping as a good marker of hydroxyl radical production, proceeding in 7th congress of Biochemistry, Jan 26-29, 2004, Ahvaz, Iran.

ACKNOWLEDGMENTS

1. Shiva Nasiraei-Moghadam Nasiraei-Moghadam, Kazem Parivar, Abolhasan Ahmadiani, Mansoureh Movahhedini, Mohammad Reza Vaez Mahdavi, “Protective Effect of Melatonin against Inequality-Induced Damages on Testicular Tissue and Sperm Parameters”, International journal of fertility & sterility, 2014 Jan-Mar; 7(4): 313–322.
2. Abbas Haghparast, Zahra Taslimi, Mahmoudreza Ramin, Pegah Azizi, Farbia Khodaghali, Majid Hassanpour-Ezatti. Changes in phosphorylation of CREB, ERK and c-fos induction in rat ventral tegmental area, hippocampus and prefrontal cortex after conditioned place preference induced by chemical stimulation of lateral hypothalamus. Behavioural Brain Research. 220, 2011, 112–118.
3. Sarkaki A, Assaei R, Motamedi F, Badavi M, Pajouhi N. Effect of parental morphine addiction on hippocampal long-term potentiation in rats offspring. Behav Brain Res. 2008 Jan 10;186(1):72-7.
4. Sarkaki A, Assaei R, Motamedi F, Badavi M, Pajouhi N. Effect of parental morphine addiction on induction and maintenance of hippocampal perforant-path to dentate gyrus pathway long-term potentiation in rats offspring. Yafteh, 2006 Winter; 8(4): 49-57.

EDITED ARTICLES:

1. Szabadi E., “Modulation of physiological reflexes by pain: role of the locus coeruleus”, Frontiers in Integrative Neuroscience 6:94, 2012.
2. Drummond P.D., “A possible role of the locus coeruleus in complex regional pain syndrome”, Frontiers in Integrative Neuroscience 6:104, 2012.

BOOKS

1. NeuroComet Manual, Software for Single-unit Recording, ScienceBeam Company, 2011, Tehran.
2. NeuroTrace Manual, Software for LFP and EEG recording, ScienceBeam Company, 2011, Tehran.
3. Potentialize Manual, Software for Electrophysiologic Data Analysis, ScienceBeam Company, 2011, Tehran.
4. NeuroSound Manual, Software for Single-unit recording, ScienceBeam Company, 2011, Tehran.

5. **Mir Shahram Safari**, Elham Hariri, (2007) *Neurological Foundations of Cognitive Neuroscience*. Esposito (Translation to Farsi).
6. **Mir Shahram Safari**, Reza Lashgari, Fereshteh Motamedi, *In vivo* Field Potential Recording, 2006, Tehran.
7. **Mir Shahram Safari**, Fereshteh Motamedi, Guidelines of research works with laboratory animals, 2004, Tehran.

JOURNAL REVIEW

1. Journal of Neuroscience
2. Frontiers in Physiology
3. Frontiers in Integrative Neuroscience
4. Basic and Clinical Neuroscience
5. Physiology and Pharmacology
6. Archives of Iranian Medicine
7. Acta Medica Iranica

GRANT REVIEW

1. Iranian National Science Foundation (INSF), Tehran, Iran.
2. Research Deputy of Ministry of Health and Medical Education, Tehran, Iran.
3. Research Deputy of Shahid Beheshti Uni. Med. Sci, Tehran, Iran.
4. Stem cell research network of Iran
5. Neuroscience Research Center, Shahid Beheshti Uni. Med. Sci, Tehran, Iran.

TEACHING EXPERIENCES

1. Teaching *Principals of Neural Science* book for Science Beam company members, Tehran, Jan-Sep 2011.
2. Teaching *Neurophysiology* for MSc students of Developmental Biology, Azad University of Karaj, Feb-June 2011.
3. Teaching *Cell Culture* for MSc students of Molecular Biology-Microbiology, Azad University of Karaj, Feb-June 2011.
4. Teaching *Physiology* for BSc students of Biology, Azad University of Karaj, Feb-June 2011.
5. Teaching *Pharmacology* for operation room students (51 hours), Iranian arm University of medical sciences, Tehran, Iran, Dec 2010-Jan 2011.
6. Teaching *In vivo Single Unit Recording* in workshops of electrophysiological recording techniques, NRC, Feb, July and Oct 2010.
7. Teaching in *Research Worker Training Course* in SBMU research deputy, Tehran, Iran, June 2007.
8. Teaching *Scientific Citation, Medical Data Banks and Search Skills* as a workshop in SBMU research deputy, Tehran, Iran, May 2007.
9. Teaching *Review of Medical Physiology* for applicants of Ph.D. entrance examination of Iranian Universities, Iran University of Medical Sciences, Tehran, Iran, 2006-2009.
10. Several lectures on *Patch Clamp Technique*, Neuroscience Research Center, SBMU, Tehran, Iran, 2006.
11. Teaching *In vivo Field Potential Recording* in 6th IBRO Associate School of Neuroscience, 26th - 30th August, 2006 and Neuroscience Orientation Summer Program 2nd-21st September, 2006, Tehran, Iran.
12. Teaching *Laboratory Methods in Biomedical Sciences* for MSc students, TMU and SBMU, 2005 – 2011.
13. Teaching *Field Potential Recording* techniques for PhD and MSc students at neuroscience research center, 2003 – 2007.
14. Teaching *Electrophysiology and Behavioral Experiments* in Pre congress Workshop of 2nd Federation of Asian- Oceanic Neuroscience Societies (FAONS) Symposium and 3rd Iranian Neuroscience Congress, May 14-16, 2004.
15. Teaching *Physiology* for M.Sc. in Physiology students, TMU, 2004.
16. Teaching in *CCU and ECG* workshops in SBMU, 2001-2003.
17. Teaching of *Atomic Absorption Spectrophotometry* techniques for MSc students, TUMS, 2002
18. Teaching *Physiology* for dentistry students, TUMS, 2001.
19. Teaching *Physiology Laboratory Techniques* for students of medicine, TUMS, 2000.
20. Teaching *Health*, Urmia University of Medical Sciences, 1995-1996.

PROFESSIONAL TRAININGS & CERTIFICATES

1. *22nd Iranian Congress of Physiology & Pharmacology*, Sep 7-11, 2015, Kashan, Iran.
2. *The 38th Annual Meeting of the Japan Neuroscience Society*, July 28-31, 2015, Kobe, Japan.
3. *RIKEN BSI Summer Program 2015*, "Sculpting Neural Circuits and Behaviour", July 20-24, 2015, RIKEN, Japan.
4. International symposium of *Vision, Memory, Thought: how cognition emerges from neural network*; December 6-7 2014; Tokyo, Japan.
5. *44th annual meeting of SfN*, November 15-19, 2014, Washington DC, USA.
6. *17th RIKEN BSI Retreat*, Nov 5th 2014, Ito International Research Centre, Tokyo, Japan.

7. The 12th meeting of the Asian-Pacific Society for Neurochemistry (*APSN2014*), August 23-26 2014, Kaohsiung, Taiwan.
8. **RIKEN BSI Summer Program 2014**, “Disentangling Mental Disorders: from Genes to Circuits”, July 15-22, 2014, RIKEN, Japan.
9. **16th RIKEN BSI Retreat**, Nov 21-22 2013, Karuizawa, Nagano, Japan.
10. *Neuroscience 2013*, 43rd annual meeting of sfn, Nov 9-13, 2013 San Diego, California, USA.
11. **The Networked Brain**: satellite meeting of Neuroscience 2013, 43rd annual meeting of sfn, Nov 7-8, 2013, San Diego, California, USA.
12. **International Symposium Optogenetics 2013**, Keio University, Tokyo, Japan, September 26-27, 2013.
13. **RIKEN BSI Summer Program 2013**, “Neural Circuits from Top to Bottom”, July 2 - July 10, 2013, RIKEN, Japan.
14. The Sixth International Neural Microcircuit Conference, **Functional Mechanism of Cortical Microcircuit**, 24th-26th June 2013, Okazaki, Japan.
15. **The 36th Annual Meeting of the Japan Neuroscience Society**, 20-23 June 2013, Kyoto, Japan.
16. **Molecular and Cellular Cognition Society (MCCS) Asia 6th Annual Meeting**, June 19th 2013, Kyoto, Japan.
17. 15th RIKEN BSI Retreat, Nov 12-13 2012, Karuizawa, Nagano, Japan.
18. Hundreds seminars, lectures, forums of the world most eminent scientists in RIKEN BSI, Japan, 2012-present.
19. INCF Japan Node International Symposium, **ADVANCES IN NEUROINFORMATICS 2012**, RIKEN, Wako, Saitama, Japan, October 30, 2012.
20. **The 35th Annual Meeting of the Japan Neuroscience Society**, 18-21 September 2012, Nagoya, Japan.
21. **RIKEN BSI Summer Program 2012**, “The Collective Brain: How does the dynamics of collective interaction of neurons make our mind work?”, July 3 - July 11, 2012, RIKEN, Japan.
22. International Brain Research Organization (IBRO) **Young Investigator Training Program** Fellowship in **Prof. Marco Pistis and Prof. Marco Diana** laboratories in Cagliari and Sassari Universities, respectively, June-July 2011, Sardegna, Italy.
23. **8th world congress of IBRO**, July 14-19, 2011, Florence, Italy.
24. **7th FENS** forum of European Neuroscience, July 3-7, 2010, Amsterdam, the Netherlands.
25. Workshop on **Strategic Management in Public Relations Affair**, June, July and Aug 2010, SBMU, Tehran.
26. Workshop on **Electronic Application in Electrophysiology**, Jan 2010, SBMU, Tehran.
27. Workshop on **Strategic Planning in Public Relations Affair**, Jan 2010, SBMU, Tehran.
28. Advance Workshop on **Creativity and Innovation**, March 2009, SBMU, Tehran.
29. **IBRO School** of Neuroscience, January 6-17, 2009, Hong Kong.
30. 6th Symposium of the **Asian Biophysics Association** & 27th Annual Meeting of the **Hong Kong Society of Neurosciences**, January 11-15, 2009, Hong Kong.
31. Workshop on **Strategic and Operational Planning**, July 2007, SBMU, Tehran
32. **6th** Congress of Federation of Asian and Oceanic Physiological Societies (**FAOPS**) Seoul, South Korea, October 16-18, 2006.
33. 6th IBRO Associate **School of Neuroscience** 26th – 30th August 2006, Tehran, Iran.
34. Workshop on **Ethics in Use of Animals in Scientific Research**, June 2006, TMU, Tehran.
35. Workshop on **Public Relations Affair Skills**, Feb 2006, May 2008, SBMU, Tehran.
36. Workshop on **How to Write CV, Official and Recommendation Letters**, Feb 2006, SBMU, Tehran.
37. **Advanced Research Methodology** course in experimental and clinical studies, Jan 2006, Endocrinology and Metabolism Research Institute, SBMU.
38. The 14th (1999), the 16th (2003), the 17th (2005), the 18th (2007) and 19th (2009) Congress of **Physiology and Pharmacology**, Iran.
39. First (July 2005), Second (June 2007) and Third (May 2009) International Symposium of Molecular Technology (**ISMT**), Tehran, Iran.
40. **PCR and Molecular Biology**, 2004 & 2005, Molecular Biology research centre of SBMU and TMU.
41. **International Computer Driving Licence (ICDL)**, 2005.
42. IBRO Fellowship of 3rd **Associate School of Neuroscience**, Asia-Pacific Region, 12 -17 Sep 2004, Cochin, India.
43. **2th** Federation of Asian- Oceanic Neuroscience Societies (**FANOS**) Symposium and 3th Iranian Neuroscience Congress, May 16-19, 2004, Tehran-Iran.
44. **Advanced Neuroscience Workshop** on Vision, Epilepsy, Ion Channels, Neuroinflammation, Pain, Learning and Memory, Feb 2004, TMU.

45. Workshop on *Strategic Planning*, Jan 2004, Research and Technology Deputy of Iranian Health and Medical education Ministry.
46. *Internet Search Skills* in DLN centre, 2004, SBMU.
47. Pre congress workshop of *Developmental Neuroscience* at Tarbiat Modares University (TMU) By **Prof. John Nicholls**. May, 2003, Tehran-Iran.
48. *Patch Clamp* training course in pre congress workshop by **Prof. Alasdair Gibb**, TMU, May, 9-13, 2003 Tehran-Iran.
49. Workshop on *Animals Behavioral Research* in Institute Pasteur Iran. May 5-7, 2003, Tehran-Iran.
50. Workshop of Electrophysiology (*Field Potential, Intracellular and Single Unit Recording*) Nov 2003, Tehran, Iran.
51. Workshop on *Teaching Physiology*, 2003, TMU.
52. *Several Neuroscience courses* given by the *Internationally Well Known Neuroscientists* from SISSA (Italy), Riken institute (Japan) and USA Universities at Institute for Studies in Theoretical Physics and Mathematics (IPM), 2003 – 2010.
53. *IBRO Advanced Workshop in Neuroscience* by Visiting Lecturer Team Program (VLTP), Feb 2002, TMU.
54. *Research Methodology* course in experimental and clinical studies, 2003, Research Deputy of Shahid Beheshti University of Medical Sciences (SBMU).
55. TMU MOHMET (2002) and Ministry of Health and Medical Education MCHE (2003) *English Language Proficiency Exams*.
56. *Laboratory Methods in Biomedical Sciences*, 2001, TMU.
57. Statistical data analysis with *SPSS*, 2000, TUMS.
58. Certified course in *Hemodialysis*, Oct 2000 – Jan 2001, SBMU.
59. *Cardiovascular Physical Examination* and *CPR* workshops, 1999 & 2000, SBMU.
60. Several annual congress of Iranian society of *Pain*.

FULL TIME POSITIONS

- Sep 2015– present Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- Dec 2011– Sep 2015 **Research Scientist** in Laboratory for Cortical Circuit Plasticity, Brain Science Institute (BSI), RIKEN, Wako, Japan.
- 2003 – Dec 2011 **Senior expert and researcher** in Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

EDITORIAL EXPERIENCES

1. Associate *Section Editor* in Basic and Clinical Neuroscience, 2013-present.
2. Member of *editorial board* of Frontiers in Integrative Neuroscience as Guest Associate Editor, 2011-present.
3. **Scientific News Manager** of Iranian Neuroscience Network Website, 2008-2009.
4. Organizer of NRC Weekly *Journal Clubs*, 2006 – 2012.
5. Member of *SBMU Journals Council*, 2005-2006.
6. Executive member of *Editorial Board* of Journal of Physiology and Pharmacology, 2005-2006.
7. Member of Editorial Board of SBMU *International Newsletter*, 2005 – 2010.
8. Member of *Editorial Board* of *FAOPS Newsletter*, 2005.
9. Representative of *Knowledge Diffusion Network* in Iran (Biomedical Sciences Branch) for organizing lectures in Tehran Universities for Iranian scientists abroad, 2004 – present.
10. Member of *Editorial Committee* of 2nd FAONS Symposium Proceeding, 2004.
11. **Reviewer** of 2nd FAONS Symposium Proceeding, 2004.

EXECUTIVE EXPERIENCES

1. Head of *Public Relation Affairs*, 19th Congress of *Physiology and Pharmacology*, 2009, Tehran, Iran.
2. **Member of Organizing Committee** of Second (June 2007) and Third (May 2009) International Symposium of Molecular Technology (*ISMT*), Tehran, Iran.
3. Member of NRC *Website Design Committee*, 2009.
4. Head of International Affair of *Farzan Institute*, 2008, Tehran.
5. Director of *NRC Library*, 2007 - 2012.

6. **Member of Organizing Committee** of 6th IBRO Associate School of Neuroscience and the 1st Neuroscience Orientation Summer Program, 26th August - 21th September 2006, Tehran, Iran.
7. Member of **Annual Evaluation** Committee of NRC, 2006 –2010.
8. **Executive Secretary** of First International Symposium of Molecular Technology (**ISMT**), July 2005, Tehran, Iran.
9. **Executive Secretary** of 2nd **FAONS symposium**, 16-19 May 2004, Tehran, Iran.
10. **Webmaster** of Neuroscience Research Center Website on HBI domain: <http://www.nrciran.hbi.ir>, 2004 – 2006.
11. **Executive Manager** of **IT** Infrastructures in Neuroscience Research Center, 2003 – 2012.
12. **Head of International Affairs** in Neuroscience Research Center, 2002 – 2012.
13. **Head of public relation affairs** in Neuroscience Research Center, 2003 – 2012.
14. **Representative** of Neuroscience Research Center in Extramural Organizations and Research Ceremonies. **Executive Manager** of NRC Representative Materials, 2003 – 2009.
15. Executive secretary of **Strategic Planning** of Neuroscience Research Center, 2003 – 2010.

LABORATORY SKILLS

1. Small animal **brain microsurgery**
2. **Chronic cranial window**
3. In vivo **Calcium Imaging**.
4. **Optogenetics**.
5. **In vivo Two-photon** laser scanning microscopy.
6. **EEG** and **LFP** recording.
7. **In vivo Blind, two-photon targeted** and **shadow** Patch-clamp recording (single and paired whole-cell).
8. In vitro **Patch-clamp** recording (single and paired patch).
9. In vivo **Single Unit** extracellular recording.
10. In vivo **Field Potential** recording.
11. **Microinjection** in Brain Nuclei.
12. Animal Models of **Behavioral Study** of Learning and Memory: Passive and active avoidance learning.
13. Animal Models of **Pain Study**: Tail Flick Test; Hot Plate Test; Formalin Test.
14. **Conditioned Place Preference (CPP)**.
15. **Western blot**.
16. **Electrochemical Detection (ECD)** of reactive oxygen species (ROS).
17. High Performance Liquid Chromatography (**HPLC**) with UV and ECD detectors.
18. **Atomic absorption** Spectrophotometry.
19. **Software**: MATLAB, labview, SPSS, PRISM, InStat, Microsoft office, ...

DISSERTATIONS

Ph.D. Thesis

2007-2010 The interaction between orexin and cannabinoid systems in locus coeruleus on pain modulation.
(GPA= 19.80/20)

Supervisor: Prof. Saeed Semnani

Email : ssemnan@modares.ac.ir

Advisors: Prof. Abolhassan Ahmadiani

Email : aahmadiani@yahoo.com

Dr. Abbas Haghparast

Email : haghparast@yahoo.com

M.Sc. Thesis

2001-2002 Deferrioxamine and Neocuproine effects on Hydroxyl radical formation and plasma Zn and Cu concentration in rat renal ischemia reperfusion, In vivo.
(GPA= 19/00)

Supervisor: Prof. Mahdiah Faghihi

Email:

Advisor: Prof. Mehri Kadkhodayi

Email:

THESIS DIRECTED, SUPERVISED or CONSULTED

Role of orexinergic projection of the lateral hypothalamic area to the ventral tegmental area (VTA) and their interaction with intra-VTA

CB1 cannabinoid receptor in development of reward related behaviors in rat. Zahra Taslimi (M.Sc. Thesis in Shahed University, Tehran, Iran)

Supervisors: Abbas Hghparast, Majid Hassanpour Ezzati

Consulted by: Mir-Shahram Safari

RESEARCH PROJECTS & PROPOSALS

1. Making Wireless Deep Brain Stimulator and SUR-LFP Recorder for Rat, 2011.
2. Effect of Prenatal Morphine Exposure on Learning and Memory of Male and Female Offsprings of Rats before and after Puberty, 2010- 2011.
3. The Electrophysiologic Assessment of Crosstalk between Orexin and Cannabinoid Systems in the Modulation of Pain by Locus Coeruleus, 2008 – 2010, NRC, SBMU, Iran.
4. The Behavioral and Molecular Assessment of Crosstalk between Orexin and Cannabinoid Systems in the Modulation of Pain by Locus Coeruleus, 2008 – 2010, NRC, SBMU, Iran.
5. Establishing Data Bank of Iranian Neuroscientists, 2009, NRC, SBMU, Iran.
6. Strategic Planning of Iranian Neuroscience Network (INN), 2007, NRC, SBMU, Iran.
7. Effects of Various Prenatal Stress on Hippocampus Morphology, Spatial Memory, Passive Avoidance Learning and Long Term Potentiation (LTP) on F1, F2 and F3 Generations in Wistar Rats, 2007, Neuroscience Research Center, SBMU, Iran.
8. Effects of Various Prenatal Stress on Hippocampal Morphology and Pkc β 1 and NMDA Receptor NR2B Subunit Expression on F1, F2 and F3 Generations in Wistar Rats, 2007, Neuroscience Research Center, SBMU, Iran.
9. Electrophysiologic Changes in the Hippocampus Perforant Path-Dentate Gyrus Synaptic Transmission in Morphine Addicted and Withdrawn Rats, 2004-2005, Neuroscience Research Center, SBMU, Iran.
10. Strategic Planning of Neuroscience Research Center, 2004-2005, SBMU, Iran.
11. Effect of Defferioxamine and Neocuproine on Hydroxyl Radical Production and Plasma Zn and Cu Concentration at Ischemic Reperfusion Injury of Rat Kidney, 2002-2003, TUMS, Iran.

RESEARCH INTERESTS

1. Visual system
2. Sensory processing
3. Plasticity
4. Cognitive Neuroscience
5. Electrophysiology
6. Pain
7. Addiction and Reward
8. Neuropsychology
9. Learning and Memory

REFEREES

1. Prof. Tadaharu Tsumoto

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3. Prof. Abolhassan Ahmadiani

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ADDITIONAL INFORMATION

Country of Residence : Iran, Japan