



Physiology and Pharmacology Department
Pasteur Institute of Iran

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ACADEMIC AND RESEARCH EXPERIENCE

BAc. Nursing, Iran University of Medical Sciences	1999-2003
MSc., Physiology, Tabriz University of Medical Sciences	2003-2006
Ph.D., Physiology, Shahid Beheshti University of Medical Sciences	2008- 2013
Faculty member in Pasteur Institute	2014

SCIENTIFIC INTERESTS:

- Electrophysiology (Whole-cell Patch-Clamp Recording, Field Potential recording, Single Unit recording)
- Calcium Imaging
- Cell lines and primary Culture, Stem Cell, Transgenic Animal Model, Plasmid preparation.
- PCR, RT-PCR, Western Blot, Co-Immunoprecipitation,
- Behavioral Tests
- Identification of virus-mediated ion channel alterations and effects of ion channel drugs on microbial neuropathology.

MEMBERSHIP OF SCIENTIFIC SOCIETIES:

- International Brain Research Organization (IBRO)
- Society for Neurosciences (SfN)
- Iranian Society of Physiology and Pharmacology (ISPP)
- Iranian Neuroscience Society

DISTINCTIONS:

- Best Researcher Award, Pasteur Institute of Iran, January 2020
- Travel award to attend Society for Neuroscience Meeting, Chicago, USA, 2015.
- Travel award to attend IBRO-APRC Advanced School in Neuroscience, Beijing, China 2011.
- Awarded a scholarship by the Ministry of Health and Medical Education, 2011-2012
- Top Student, Ph.D of Physiology, 2012
- Fifth Ranked in PhD Exam, Ministry of Health & Medical Education (2008).
- Top Student, MSc of Physiology, 2006

TECHNICAL EXPERIENCES:

- Theoretical and Practical Knowledge in Whole Cell Patch Clamp (Current Clamp and Voltage Clamp including Evoked & Spontaneous Excitatory/Inhibitory Postsynaptic Currents, Calcium and Potassium Channel Recordings as well as Active and Passive Membrane Properties.
- Patch clamp on cell line (HEK293, NG108) and primary hippocampal and cortical cells.
- Plasmid preparation, mutagenesis and PCR
- Protein extraction, co-immunoprecipitation and western blot
- Preparation of primary cultures and cell lines, use of viral vector for gene transfer
- Theoretical and Practical Knowledge in field potential recording
- Slice Preparation of Hippocampus and Hypothalamus
- Animal Surgery including brain stereotactic surgery in rats
- Behavioral Test on Passive Avoidance Learning by Shuttle Box
- Behavioral Test on Motor Activity and Locomotion by Rota-Rod
- Behavioral Test on Spatial Memory by Morris Water Maze(Reference, Reversal and Working Memory)
- Behavioral Test on Anxiety by Plus Maze
- Behavioral Test on Fear Conditioning
- Photothrombotic model of stroke

PEER REVIEWED JOURNAL PUBLICATIONS

1. Mozhdeh Radpour, Samira Choopani, **Hamid Gholami Pourbadie**, Mohammad Sayyah*. Activating toll-like receptor 4 after traumatic brain injury inhibits neuroinflammation and the accelerated development of seizures in rats. *Experimental Neurology*. 2022
2. Fatemeh Sayehmiri, Fariba Khodagholi, Hamid Gholami Pourbadie, Nima Naderi, Faezeh Aliakbarzadeh, Reza Hashemi, Soudabeh Naderi, Fereshteh Motamedi. Phosphonate analog of 2-oxoglutarate regulates glutamate-glutamine homeostasis and counteracts amyloid beta induced learning and memory deficits in rats. *Experimental Gerontology*. 2022
3. Soheil Ghassemi, Tara Asgari, Hadi Mirzapour-Delavar, Shayan Aliakbari, **Hamid Gholami Pourbadie***, Christophe Prehaud, Monique Lafon, Alireza Gholami, Kayhan Azadmanesh, Nima Naderi, Mohammad Sayyah*. Lentiviral Expression of Rabies Virus Glycoprotein in the Rat Hippocampus Strengthens Synaptic Plasticity. *Cellular and Molecular Neurobiology*. 2022
4. Shokufeh Beglari, Fariba Khodagholi, **Hamid Gholami Pourbadie**, Alireza Iranbakhsh, Mahdi Rohani*. Biosorption and bioaccumulation of nickel by probiotic lactic acid bacteria isolated from human feces. *Bioremediation Journal*. 2022
5. Soheil Ghassemi, **Hamid Gholami Pourbadie***, Christophe Prehaud, Monique Lafon, Mohammad Sayyah. Role of the glycoprotein thorns in anxious effects of rabies virus: Evidence from an animal study. *Brain Research Bulletin*. 2022
6. Arezou Lari, **Hamid Gholami Pourbadie***, Ali Sharifi-Zarchi, Maryam Akhtari, Leila Nejatbakhsh Samimi, Ahmadreza Jamshidi, Mahdi Mahmoudi. Dysregulation of ribosome-related genes in ankylosing spondylitis: a systems biology approach and experimental method. *BMC musculoskeletal disorders*. 2021

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7. Faezeh Poursoleiman, Hamid Zand, **Hamid Gholami Pourbadie**, Hadi Monji, Katayoun Pourvali. Anti-mullerian hormone attenuates insulin resistance and systemic inflammation in old obese C57BL/6 male mice. *Journal of Diabetes & Metabolic Disorders*. 2021
 8. Shayan Aliakbari, Mohammad Sayyah, Hadi Mirzapourdelavar, Niloufar Amini, Naser Naghdi, **Hamid Gholami Pourbadie***. Overexpression of protein kinase M ζ in the hippocampal dentate gyrus rescues amyloid- β -induced synaptic dysfunction within entorhinal-hippocampal circuit. *Neurobiology of Aging*. 2021
 9. Hoda Shams Najafabadi, Mehdi Sadeghi, Mohammad I Zibaii, Zahra-Soheila Soheili, Shahram Samiee, Pouria Ghasemi, Mohammad Hosseini, **Hamid Gholami Pourbadie**, Hamid Ahmadieh, Sepideh Taghizadeh, Ehsan Ranaei Pirmardan. Optogenetic control of neural differentiation in Opto-mGluR6 engineered retinal pigment epithelial cell line and mesenchymal stem cells. *Journal of cellular biochemistry*. 2021
 10. Soheil Ghassemi, Tara Asgari, **Hamid Gholami Pourbadie***, Christophe Prehaud, Monique Lafon, Nima Naderi, Alireza Gholami, Kayhan Azadmanesh, Mohammad Sayyah*. Rabies virus glycoprotein enhances spatial memory via the PDZ binding motif. *Journal of NeuroVirology*. 2021
 11. Behrouz Vaziri Fatemeh Zandi, Vahid Khalaj, Fatemeh Goshadrou, Anna Meyfour, Alireza Gholami, Somayeh Enayati, Mahsa Mehranfar, Saman Rahmati, Elmira Vadaye Kheiri, Hamid Gholamipour Badie. Rabies virus matrix protein targets host actin cytoskeleton: a protein–protein interaction analysis. *Pathogens and Disease*. 2021
 12. Soheil Ghassemi, Tara Asgari, Hadi Mirzapour-Delavar, Shayan Aliakbari, Hamid Gholami Pourbadie, Christophe Prehaud, Monique Lafon, Alireza Gholami, Kayhan Azadmanesh, Nima Naderi, Mohammad Sayyah. Lentiviral Expression of Rabies Virus Glycoprotein in the Rat Hippocampus Strengthens Synaptic Plasticity. *Journal Cellular and Molecular Neurobiology*. 2021
 13. Arezou Lari, **Hamid Gholami Pourbadie***, Mohieddin Jafari, Ali Sharifi-Zarchi, Maryam Akhtari, Leila Nejatbakhsh Samimi, Ahmadreza Jamshidi, Mahdi Mahmoudi*. Downregulation of ITM2A Gene Expression in Macrophages of Patients with Ankylosing Spondylitis. *International Archives of Allergy and Immunology*. 2021
 14. Niloufar Amini, Reza Roosta Azad, Fereshteh Motamed, Hadi Mirzapour-Delavar, Soheil Ghassemi, Shayan Aliakbari, **Hamid Gholami Pourbadie***. Overexpression of protein kinase M ζ in the hippocampus mitigates Alzheimer's disease-related cognitive deficit in rats. *Journal Brain Research Bulletin*. 2021
 15. Melika Nourbakhsh, Payam Zarrintaj, Seyed Hassan Jafari, Seyed Masoud Hosseini, Shayan Aliakbari, **Hamid Gholami Pourbadie**, Nima Naderi, Mohammad Ismail Zibaii, Saman Seyed Gholizadeh, Joshua D Ramsey, Sabu Thomas, Mehdi Farokhi, Mohammad Reza Saeb. Fabricating an electroactive injectable hydrogel based on pluronic-chitosan/aniline-pentamer containing angiogenic factor for functional repair of the hippocampus ischemia rat ... *Journal Materials Science and Engineering: C*. 2020
 16. Mostafa Farzaneh, Mohammad Sayyah, Hadi Mirzapourdelavar, **Hamid Gholami Pourbadie**, Mohammad I Zibaii, Hamid Latifi. Optogenetic control of perforant pathway kindled seizures by photoinhibition of CA3 after insertion of Jaws into CA3 neuronal cells. *Experimental neurology*. 2020
 17. Mostafa Farzaneh, Mohammad Sayyah, Hamid Reza Eshraghi, Negar Panahi, Hadi Mirzapourdelavar, **Hamid Gholami Pourbadie**. The lentiviral vector pseudotyped by modified rabies glycoprotein does not cause reactive gliosis and neurodegeneration in rat hippocampus. *Iranian biomedical journal*. 2019
 18. Mahshid Hosseinzadeh, **Hamid Gholami Pourbadie***, Fariba Khodagholi, Mahtab Daftari, Nima Naderi, Fereshteh Motamed. Preconditioning with toll-like receptor agonists attenuates seizure activity and neuronal hyperexcitability in the pilocarpine rat model of epilepsy. *Neuroscience*. 2019

19. Niloufar Yousefi, Fattah Sotoodehnejadnematalahi, Nooshin Heshmati-Fakhr, Mohammad Sayyah, Masoud Hoseini, Soheil Ghassemi, Shayan Aliakbari, **Hamid Gholami Pourbadie***. Prestimulation of microglia through TLR4 pathway promotes interferon beta expression in a rat model of Alzheimer's disease. *Journal of Molecular Neuroscience*. 2019
20. Azam Ghanbari-Maman, Forouzan Ghasemian-Roudsari, Shayan Aliakbari, **Hamid Gholami Pourbadie**, Fariba Khodagholi, Fatemeh Shaerzadeh, Mahtab Daftari. Calcium channel blockade ameliorates endoplasmic reticulum stress in the hippocampus induced by amyloidopathy in the entorhinal cortex. *IJPR*. 2019
21. Azadeh Gholaminejad, **Hamid Gholamipour-Badie**, Mohammad Nasehi, Nasser Naghdiprelimbic of medial prefrontal cortex GABA modulation through testosterone on spatial learning and memory. *IJPR*. 2019
22. Sayed Masoud Hosseini, Alireza Golaghaei, Ehsan Nassireslami, Nima Naderi*, **Hamid Gholami Pourbadie***, Milad Rahimzadegan, Saeid Mohammadi. Neuroprotective effects of lipopolysaccharide and naltrexone co-preconditioning in the photothrombotic model of unilateral selective hippocampal ischemia in rat. *Acta Neurobiol Exp*. 2019
23. Nooshin Heshmati-Fakhr, Fattah Sotoodehnejadnematalahi, Niloufar Yousefi, Mohammad Sayyah, Sayed Masoud Hosseini, **Hamid Gholami Pourbadie***. Triggering microglia through toll-like receptor 2 pathway induced interferon β expression in cell and animal model of Alzheimer's disease. *Neuroreport*, 2018
24. SM Hosseini, **HG Pourbadie**, N Naderi. M Sayyah, MI Zibaii. Photothrombotically induced unilateral selective hippocampal ischemia in rat. *J Pharmacol Toxicol Methods*, 2018
25. SM Hosseini, HG Pourbadie, M Sayyah, MI Zibaii, N Naderi. Neuroprotective effect of monophosphoryl lipid A, a detoxified lipid A derivative, in photothrombotic model of unilateral selective hippocampal ischemia in rat. *Behavioural brain research*, 2018
26. S Hesam, B Khoshkholgh-Sima, HG Pourbadie, V Babapour, M Zendedel, M Sayyah. Monophosphoryl Lipid A and Pam3Cys Prevent the Increase in Seizure Susceptibility and Epileptogenesis in Rats Undergoing Traumatic Brain Injury. *Neurochemical Research*, 2018
27. HG Pourbadie, M Sayyah, B Khoshkholgh-Sima, S Choopani, M Nategh, F Motamedi, MA Shokrgozar. Early minor stimulation of microglial TLR2 and TLR4 receptors attenuates Alzheimer's disease-related cognitive deficit in rats: behavioral, molecular, and electrophysiological evidence. *Neurobiology of Aging*, 2018
28. M Farzaneh, M Sayyah, HR Eshraghi, N Panahi, HM Delavar, HG Pourbadie. Transduction efficacy and retrograde movement of a lentiviral vector pseudotyped by modified rabies glycoprotein throughout the trisynaptic circuit of the rat hippocampus. *Journal of Gene Medicine*, 2018
29. Akram Abutorabi, Nima Naderi, Hamid Gholami pourbadie, Hossein Zolfaghariand and Hossein Vatanpour. The Effects of Buthotus schach Scorpion Venom on Electrophysiological Properties of Magnocellular Neurons of Rat Supraoptic Nucleus. *IJPR*, 2018
30. **Hamid Gholami Pourbadie** and Mohammad Sayyah, Optogenetics: Control of Brain Using Light. *Iran. Biomed. J.* 2018
31. Tajmah Mombeini, **Hamid Gholami Pourbadie**, Mohammad Kamalinejad, Soroush Mazloumi and Ahmad Reza Dehpour. Anxiolytic Like and Sedative Effects of Extract of Alcea Aucheri in Animal Model of Rat. *IJPR*, 2017

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32. Hossein Ali Safakhah, Nasroallah Moradi Kor, Atiyeh Bazargani, Ahmad Reza Bandegi, **Hamid Gholami Pourbadie**, Baharak Khoshkholgh-Sima, Ali Ghanbari . Forced exercise attenuates neuropathic pain in chronic constriction injury of male rat: An investigation of oxidative stress and inflammation. Journal of Pain Research, 2017
33. **Hamid Gholami Pourbadie**, Nima Naderi, Hadi Mirzapour Delavar, Mahshid Hosseinzadeh, Nasrin Mehranfard, Fariba Khodagholi, Mahyar Janahmadi, Fereshteh Motamed .Decrease of high voltage Ca²⁺-currents in the dentate gyrus granule cells by entorhinal amyloidopathy is reversed by calcium channel blockade. European Journal of Pharmacology, 2017
34. Sadegh Azimzadeh Jamalkandi1, Sayed-Hamidreza Mozhgani, **Hamid Gholami Pourbadie**, Mehdi Mirzaie, Farshid Noorbakhsh, Behrouz Vaziri, Alireza Gholami, Naser Ansari-Pour and Mohieddin Jafari. Systems Biomedicine of Rabies Delineates the Affected Signaling Pathways. Frontiers in Microbiology. 2016, 7.
35. **Hamid Gholami Pourbadie**, Nima Naderi, Mahyar Janahmadi, Nasrin Mehranfard, Fereshteh Motamed . Calcium channel blockade attenuates abnormal synaptic transmission in the dentate gyrus elicited by entorhinal amyloidopathy. Synapse 2016; 70: 408-417
36. **Hamid Gholami Pourbadie**, Nima Naderi, Hadi Mirzapour Delavar, Mahshid Hosseinzadeh, Nasrin Mehranfard, Fariba Khodagholi, Mahyar Janahmadi, Fereshteh Motamed . Decrease of high voltage Ca²⁺-currents in the dentate gyrus granule cells by entorhinal amyloidopathy is reversed by calcium channel blockade. Eur. J. Pharmacol. 794 (2017) 154–161.
37. Fatemeh Etemadi, Mohammad Sayyah, **Hamid Gholami Pourbadie**, Vahab Babapour . Facilitation of Hippocampal Kindling and Exacerbation of Kindled Seizures by Intra-CA1 Injection of Quinine: A Possible Role of Cx36 Gap Junctions. Iranian Biomedical Journal, 2016.
38. Fatemeh Etemadi, Mohammad Sayyah, **Hamid Gholami Pourbadie**, Vahab Babapour .Assessment of the Optimal Stimulus Pattern to Achieve Rapid Dorsal Hippocampal Kindling in Rat. Basic and Clinical Neurosci. 2015, 6(2).
39. **Hamid Gholami Pourbadie**, Nima Naderi, Nasrin Mehranfard, Mahyar Janahmadi, Fariba Khodagholi, Fereshteh Motamed . Preventing effect of L-type calcium channel blockade on electrophysiological alterations in dentate gyrus granule cells induced by entorhinal amyloid pathology. PLoS ONE (2015 Feb 17;10(2)).
40. Fataemeh Etemadi, Mohammad Sayyah, **Hamid Gholami Pourbadie**, Vahab babapour. Assessment of the optimal stimulus pattern to achieve rapid hippocampal kindling in rats. Basic and Clinical Neuroscience (2015).
41. Nasrin Mehranfard, **Hamid Gholamipour-Badie**, Fereshteh Motamed, Mahyar Janahmadi, Nima Naderi. Long-term increases in BK potassium channel underlie increased action potential firing in dentate granule neurons following pilocarpine-induced status epilepticus in rats. Neuroscience letters. 88–91 (2015)
42. Nasrin Mehranfard, **Hamid Gholamipour-Badie**, Fereshteh Motamed, Mahyar Janahmadi, Nima Naderi. The effect of paxilline on early alterations of electrophysiological properties of dentate gyrus granule cells in pilocarpine-treated rats. IJPR. 125-132 (2014).
43. Nasrin Mehranfard, **Hamid Gholamipour-Badie**, Fereshteh Motamed, Mahyar Janahmadi and Nima Naderi. Occurrence of two Types of Granule Cells with Different Excitability in Rat Dentate Gyrus Granule

Cell Layer Following Pilocarpine-Induced Status Epilepticus. Annual Research & Review in Biology, (2014).

44. **Hamid GholamipourBadie**, NimaNaderi, Fariba Khodagholi, Fatemeh Shaerzadeh, Fereshteh Motamedi. L-type calcium channel blockade alleviates molecular and reversal spatial learning and memory alterations induced by entorhinal amyloid pathology. Behavioural Brain Research. (2013).
45. Shirin Babri, **Hamid Gholamipour Badie**, Saeed Khamenie and Mehdi Ordikhani Seyedlar. Intrahippocampal Insulin Improves Memory in a Passive-Avoidance Task in Male Wistar Rats. *Brain Cogn.* 64(1):86-91 (2007).
46. Shirin Babri, **Hamid Gholamipour Badie**, Saeed Khamenie, Mehdi Ordikhani Seyedlar and Hadi Ebrahimi. Comparison of Intrahippocampal Insulin Injection on Memory Consolidation in Normal and Diabetic Male Rats. *Pharm-Sci.* 57-64 (2007).
47. Mehdi Ordikhani-seyedlar, Shirin Babri, **Hamid Gholamipour Badie** and Nahid Ghandchilar. Effect of Intrahippocampal Injection of 17-beta Estradiol on Memory Consolidation in the Female Ovariecomized Rats. *Pharm-Sci.* 35-42 (2007).

LANGUAGES:

- Persian (Native), English (Satisfactory) , French (Elementary)