



Curriculum Vitae

CONTACT INFORMATION:

Name: Etrat Hooshmandi

Address: Clinical Neurology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

Telephone (Work): +98-71-36281572

Email: ehoshmandi@gmail.com

ACADEMIC POSITION:

- **March 2021 – Present:** Assistant Professor at Clinical Neurology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.
- **March 2019 – March 2021:** Researcher in Clinical Neurology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran.

EDUCATIONAL BACKGROUND:

01.2013- PhD student in Neuroscience Research Center, Shahid Beheshti University of Medical
11.2018 Sciences, Tehran, Iran. Total GPA: 18.74/20.

Thesis: **Evaluation of behavioral and molecular effects of carbamylated erythropoietin-Fc on preventing β -amyloid induced learning and memory impairment and hippocampal cell death in male rats**, Undertaking in Neuroscience Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran. Under supervision of Dr. Nader Maghsoudi, prof.

09.2009- M.Sc in Animal physiology, Shiraz University, Dept. of Biology, Shiraz, Iran. Total
05.2012 GPA: 18.65/20.

Thesis: **The Effect of Menthol on the Pattern of Neuronal Activity in the Snail**

(Caucasotachea atrolabiata) and its Interaction with the Cellular Mechanisms Involved in the Induction of Epileptic Activity, Undertaken in department of Biology, faculty of science, Shiraz university, Shiraz, Iran. Under supervision of Dr. Jafar vatanparast, Assistant prof.

09.2004-06.2008 B.Sc. in Biology, Shahid Chamran University, Dept. of Biology, Ahvaz, Iran. Total GPA: 17.33/20.

PROFESSIONAL EXPERIENCES IN PRACTICE:

1. Clinical trial studies
2. Cooperation in setting up and activation of "http://icvtr.sums.ac.ir/" for registering patients with cerebral venous sinus thrombosis in Fars Province.
3. Electrophysiology and cell recording (intracellular recording in snail neurons).
4. Stereotaxic surgery method in rat.
5. Behavioral tests in rat including: Morris Water Maze, Radial-arm maze, Shuttle box, Open field, Novel object recognition.
6. Cell culture (Primary cell culture, Epidermal Neural Crest Stem cells, and Cell lines cultures).
7. Molecular test including: western blot analysis, ELISA, PCR.
8. Preparation of histological sections for staining and Microscopic studies.

PUBLICATIONS:

1. **Hooshmandi E**, Motamedi F, Moosavi M, Katinger H, Zakeri Z, Zaringhalam J, Maghsoudi A, Ghasemi R, Maghsoudi N. CEPO-Fc (An EPO Derivative) Protects Hippocampus Against A β -induced Memory Deterioration: A Behavioral and Molecular Study in a Rat Model of A β Toxicity. *Neuroscience*. 2018. doi: 10.1016/j.neuroscience.2018.08.001.
2. Simani L, Ryan F, Hashemifard S, **Hooshmandi E**, Madahi M, Sahraei Z, Rezaei O, Heydari K, Ramezani M. Serum Coenzyme Q10 Is Associated with Clinical Neurological Outcomes in Acute Stroke Patients. *J Mol Neurosci*. 2018. doi: 10.1007/s12031-018-1115-1.

3. **Hooshmandi E**, Ghasemi R, Iloun P, Moosavi M. The neuroprotective effect of agmatine against amyloid β -induced apoptosis in primary cultured hippocampal cells involving ERK, Akt/GSK-3 β , and TNF- α . *Mol Biol Rep*. 2019. doi: 10.1007/s11033-018-4501-4.
4. Nazemian V, Kalanaky S, Manaheji H, **Houshmandi E**, Mohammadi M, Zaringhalam J, Mirjafai S. Anti-hyperalgesia effect of nanchelating based nano particle, RAc1, can be mediated via liver hepcidin expression modulation during persistent inflammation. *Int Immunopharmacol*. 2019. doi: 10.1016/j.intimp.2019.02.003.
5. **Hooshmandi E**, Moosavi M, Katinger H, Sardab S, Ghasemi R, Maghsoudi N. CEPO (carbamyated erythropoietin)-Fc protects hippocampal cells in culture against beta amyloid-induced apoptosis: considering Akt/GSK-3 β and ERK signaling pathways. *Mol Biol Rep*. 2020. doi: 10.1007/s11033-020-05309-6.
6. Moosavi M, **Hooshmandi E**, Javadpour P, Maghsoudi N, Katinger H, Ghasemi R. Effect of carbamyated erythropoietin Fc fusion protein (CEPO-Fc) on learning and memory impairment and hippocampal apoptosis induced by intracerebroventricular administration of streptozotocin in rats. *Behav Brain Res*. 2020. doi: 10.1016/j.bbr.2020.112554.
7. Simani L, Rezaei O, Ryan F, Sadeghi M, **Hooshmandi E**, Ramezani M, Pakdaman H. Coenzyme Q10 Insufficiency Contributes to the Duration and Frequency of Seizures in Epileptic Patients. *Basic Clin Neurosci*. 2020. doi: 10.32598/bcn.11.6.1100.1.
8. Soltani A, Mashari MA, Mohammadianinejad SE, Pishva SA, Pishva SM, **Hooshmandi E**. Effects of early decompressive craniectomy on functional outcome of patients with malignant middle cerebral artery infarctions. *Curr J Neurol*. 2020. doi: 10.18502/cjn.v19i4.5550.
9. Borhani-Haghighi A, Ghannadi S, Safari A, Neydavoodi M, Poursadeghfard M, Ashjazadeh N, **Hooshmandi E**. The study of intermediate-term survival of the patients with cerebral venous sinus thrombosis. *Neurology Asia*. 2020. [https://www.neurology-asia.org/articles/neuroasia-2020-25\(4\)-453.pdf](https://www.neurology-asia.org/articles/neuroasia-2020-25(4)-453.pdf).
10. Hossein-Tehrani MR, Ghaedian T, **Hooshmandi E**, Kalhor L, Foroughi AA, Ostovan VR. Brain TRODAT-SPECT Versus MRI Morphometry in Distinguishing Early Mild Parkinson's Disease from Other Extrapyrmidal Syndromes. *J Neuroimaging*. 2020. doi: 10.1111/jon.12740.
11. Shakibajahromi B, Borhani-Haghighi A, Vardanjani HM, Ghaedian M, Feiz F, Safari A, **Hooshmandi E**, Mowla A. Isolated headache and its association with characteristics

and outcome of cerebral venous sinus thrombosis. *Cephalalgia Reports*. 2020. <https://doi.org/10.1177/2515816320919961>.

12. Shenavandeh S, Sefidbakht S, Iranpour P, Teimouri A, Hooshmandi S, **Hooshmandi E**, Athari M. COVID-19 and granulomatosis with polyangiitis (GPA): a diagnostic challenge. *Rheumatology (Oxford)*. 2020. doi: 10.1093/rheumatology/keaa326.
13. **Hooshmandi E**, Borhani-Haghighi A. The Case Is Much More Baffling than We Think. *Eur Neurol*. 2020. doi: 10.1159/000508598.
14. Daneshmand A, **Hooshmandi E**, Borhani-Haghighi A. Evaluation of Outcomes and Complications of rtPA Administration with Dose 0.6 mg/kg in Patients with Acute Ischemic Stroke. *Journal of Vessels and Circulation*. 2021. http://jvessels.muq.ac.ir/browse.php?a_id=129&sid=1&slc_lang=fa.
15. Iloun P, **Hooshmandi E**, Gheibi S, Kashfi K, Ghasemi R, Ahmadiani A. Roles and Interaction of the MAPK Signaling Cascade in A β 25-35-Induced Neurotoxicity Using an Isolated Primary Hippocampal Cell Culture System. *Cell Mol Neurobiol*. 2021. doi: 10.1007/s10571-020-00912-4.
16. Mozafari R, Karimi-Haghighi S, **Hooshmandi E**, Ghasemi R, Koruji M, Ahadi R, Haghparsat A. Hippocampal D1-but not D2-like dopamine receptors modulate the phosphorylation of ERK in food deprivation-induced reinstatement of morphine in extinguished rats. *Neuroreport*. 2021. doi: 10.1097/WNR.0000000000001597.
17. Bayat M, Kohlmeier KA, Haghani M, Haghighi AB, Khalili A, Bayat G, **Hooshmandi E**, Shabani M. Co-treatment of vitamin D supplementation with enriched environment improves synaptic plasticity and spatial learning and memory in aged rats. *Psychopharmacology (Berl)*. 2021. doi: 10.1007/s00213-021-05853-4.
18. Jaber N, Kavosi Z, **Hooshmandi E**, Moradi N, Keshavarz K, Borhani-Haghighi A. The Study of Cost-Effectiveness of Rivaroxaban versus Warfarin in Patients with Atrial Fibrillation Who Developed Ischemic Stroke. *Stroke Res Treat*. 2021. doi: 10.1155/2021/5534873.
19. Salehi MS, Safari A, Pandamooz S, Jurek B, **Hooshmandi E**, Owjifard M, Bayat M, Zafarmand SS, Miyan JA, Borhani-Haghighi A. The Beneficial Potential of Genetically Modified Stem Cells in the Treatment of Stroke: a Review. *Stem Cell Rev Rep*. 2021. doi: 10.1007/s12015-021-10175-1.
20. Ostovan VR, Foroughi R, Rostami M, Almasi-Dooghaee M, Esmaili M, Bidaki AA, Behzadi Z, Farzadfar F, Marbooti H, Rahimi-Jaberi A, Poursadeghfard M, Fadakar N, Bayat M, Owjifard M, Salehi MS, Zafarmand SS, Mardi F, Safari A, Shahjouei S,

Mowla A, Azarpazhooh MR, Zand R, **Hooshmandi E**, Borhani-Haghighi A. Cerebral venous sinus thrombosis associated with COVID-19: a case series and literature review. *J Neurol*. 2021. doi: 10.1007/s00415-021-10450-8.

21. Sasanejad P, Afshar Hezarkhani L, Arsang-Jang S, Tsiygoulis G, Ghoreishi A, Kristian B, Rahmig J, Farhodi M, Sadeghi Hokmabadi E, Borhani-Haghighi A, Sariaslani P, Sharifi-Razavi A, Ghandehari K, Khosravi A, Smith C, Nilanont Y, Akbari Y, Nguyen TN, Bersano A, Yassi N, Yoshimoto T, Lattanzi S, Gupta A, Zand R, Rafie S, Pourandokht Mousavian S, Reza Shamsavaripour M, Amini S, Kamenova SU, Kondybayeva A, Zhanuzakov M, Macri EM, Nobleza COS, Ruland S, Cervantes-Arslanian AM, Desai MJ, Ranta A, Moghadam Ahmadi A, Rostamihosseinkhani M, Foroughi R, **Hooshmandi E**, Akhoundi FH, Shuaib A, Liebeskind DS, Siegler J, Romano JG, Mayer SA, Bavarsad Shahripour R, Zamani B, Woolsey A, Fazli Y, Mojtaba K, Isaac CF, Biller J, Di Napoli M, Azarpazhooh MR. Safety and Outcomes of Intravenous Thrombolytic Therapy in Ischemic Stroke Patients with COVID-19: CASCADE Initiative. *J Stroke Cerebrovasc Dis*. 2021. doi: 10.1016/j.jstrokecerebrovasdis.2021.106121.
22. Akbari S, **Hooshmandi E**, Bayat M, Borhani Haghighi A, Salehi MS, Pandamooz S, Yousefi Nejad A, Haghani M. The neuroprotective properties and therapeutic potential of epidermal neural crest stem cells transplantation in a rat model of vascular dementia. *Brain Res*. 2021. doi: 10.1016/j.brainres.2021.147750.
23. Rai SN, Tiwari N, Singh P, Mishra D, Singh AK, **Hooshmandi E**, Vamanu E, Singh MP. Therapeutic Potential of Vital Transcription Factors in Alzheimer's and Parkinson's Disease with Particular Emphasis on Transcription Factor EB Mediated Autophagy. *Front Neurosci*. 2021 doi: 10.3389/fnins.2021.777347.
24. Zafarmand SS, Karimi-Haghighi S, Salehi MS, **Hooshmandi E**, Owjfarid M, Bayat M, Karimlou S, Pandamooz S, Dianatpour M, Borhani-Haghighi A. Aspirin impacts on stem cells: Implications for therapeutic targets. *Tissue Cell*. 2021. doi: 10.1016/j.tice.2021.101707.

PRESENTAYIONS:

Oral:

- In the 5th International Conferences of Biology, 4-6 September. 2012, Kerman University, Kerman, Iran. "The Effect of Menthol on the Pattern of Neuronal Activity in the Snail (*Caucasotachea atrolabiata*) and its Interaction with the Cellular Mechanisms Involved in the Induction of Epileptic Activity".

- In the 6th Basic and Clinical Neuroscience Congress, 20-22 December. 2017, Tehran, Iran. “Carbamylated Erythropoietin-Fc protects against beta-amyloid(25-35)-induced learning and memory deficit and hippocampal MAPKs signaling disruption”.

Poster:

- National Conference of Matter, Life, Mind. 17 Dec. 2009, Shiraz University, Shiraz, Iran. “Is the brain bigger better?”.
- International Neuroscience Graduate Summer Workshop and Paractical Training (Gazi-EgeBINGSS), 25-29 June 2018, Ankara, Turkey. “Serum GFAP level: a novel adjunctive diagnostic method in differentiating epileptic from psychogenic seizure”.
- IBRO-APRC Associate School on Blood-Brain-Barrier: From Basic Physiology to Neurological Disorders, 04-09 November 2019, Chandigarh, India. "Evaluation of Behavioral and Molecular Effects of Carbamylated Erythropoietin-Fc on Preventing A β -induced Memory Deterioration in Male Rats".

PROFESSIONAL QUALIFICATION:

- 3rd Tehran IBRO School of Neuroscience "Molecular, Electrophysiological and Behavioural Approaches" (Executive Committee), 26 October – 6 November, 2013. Tehran, Iran.
- 2nd International Congress of Basic and Clinical Neuroscience (Executive Committee), December 18-20, 2013, Tehran, Iran.
- 4th International Symposium on Biotechnology Molecular Technology "Drug Development and Therapeutics" (Executive Committee), 14-16 October, 2014. Tehran, Iran.
- 3rd International Congress of Basic and Clinical Neuroscience (Student Committee), 29-31 October, 2014, Tehran, Iran.
- Member of Participant in the 8th International Association of Neurorestoratology and 12th GCNN Congress. 27-29 April. 2015. Tehran, Iran.
- 1st Neuroweekend (Executive Committee), August, 2015, Tehran, Iran.
- 4th International Congress of Basic and Clinical Neuroscience (Student Committee), 23-25 December, 2015, Tehran, Iran.
- Attendance in workshop on " Human Brain Dissection" in the 4th Basic and Clinical Neuroscience Congress, 23-25 December, 2015, Tehran, Iran.
- IBRO/APRC 5th Tehran School of Neuroscience "Basic approaches in neurological diseases" (Executive Committee), April 30 – May 11, 2016. Tehran, Iran.

- 5th International Congress of Basic and Clinical Neuroscience (Student Committee), 7-9 December, 2016, Tehran, Iran.
- Participated in 1st Iranian Symposium on Brain Mapping Updates (ISBM2017), 24-25 September, 2017, Tehran, Iran.
- Participated as an executive assistant in "Western Blots Analysis Workshop", Neurophysiology Research Center, SBMU, 28-29 August, 2017, Tehran, Iran.
- Member of Panel Board in the 11th International Addiction Science Congress. 13-15 September, 2017, Tehran, Iran.
- Participated in the Workshop on "Assessment and Diagnosis of Sleep Disorders: A Cognitive Neuroscience Approach", 27-28 September, 2017, NBML, Tehran, Iran.
- Attendance in International Neuroscience Graduate Summer Workshop and Practical Training (Gazi-EgeBINGSS), 25-29 June 2018, Ankara, Turkey.
- IBRO-APRC Associate School on Blood-Brain-Barrier: From Basic Physiology to Neurological Disorders, 04-09 November 2019, Chandigarh, India.

GRANTS:

1. Granted for attendance in **International Neuroscience Graduate Summer Workshop and Practical Training** (Gazi-EgeBINGSS), 25-29 June 2018, Ankara, Turkey.
2. Granted from Asia-Pacific Regional Committee (APRC) of IBRO (International Brain Research Organization) to attend the **IBRO-APRC Associate School on Blood-Brain-Barrier: From Basic Physiology to Neurological Disorders**, 04-09 November 2019, Chandigarh, India.

TEACHING:

- Participated as a teaching assistant in the IBRO/APRC 5th Tehran School of Neuroscience. April 30- May 11, 2016. Tehran, Iran.
- Assisted in teaching the laboratory experiments in the IBRO-APRC Tehran Advanced School of Neuroscience. April 29- May 11, 2017. Tehran, Iran.

MEMBERSHIP:

- Iranian Neuroscience society.

- International cell death society.