

# Curriculum Vita

## Personal Background

**Family Name:** Aligholi

**First Name:** Hadi

**Date of Birth:** 21 Sep, 1978

**Place of Birth:** Abadeh

**Nationality:** Iranian

**First Language:** Persian (Farsi)

**Second language:** English

**E-mail:** hadialigholi@yahoo.com, aligholi@sums.ac.ir



## Educational Background

**2008-2015** PhD in Neurosciences, at Tehran University of Medical Sciences, minocyc

Tehran, Iran

**2003-2006** MSc in Medical Physiology at Ahvaz University of Medical Sciences, Ahvaz, Iran

**1996-2000** BSc in Nursing at Shiraz University of Medical Sciences, Shiraz, Iran

**1983-1996** Diploma in Experimental Sciences at ImamKhomeini High School, Abadeh, Iran

## Employments and Professional Background

**2000-2002** Educational and clinical supervisor, Vali asr Hospital, Bavanat, Iran

**2006-2007** Nurse staff in recovery and emergency ward, Namazi Hospital, Shiraz, Iran

**2007-2008** Clinical Supervisor, Namazi Hospital, Shiraz, Iran

**2010-2015** Researcher, Shefa neuroscience research center, Tehran, Iran

**2015-Now** Associate professor in Shiraz University of Medical Sciences

## PhD thesis Title:

Autologous transplantation of adult neural stem/progenitor cells seeded in self assembling nanofiber scaffold in animal model of acute brain injury.

## MSc thesis Title:

Effects of soy meal ( $\pm$ isoflavone) on spatial learning and memory in an ovariectomized animal model of Parkinson's disease.

## **Research Activities**

- Cognitive profile assessments
- Cell culturing
- Neural tissue engineering
- Embryonic neural stem cells (Rat, Mice)
- Adult neural stem cells (Human, Rat, Mice)
- Neurosphere assay
- Exosome therapy
- Nanoscaffolds
- Slice culture
- Cell therapy in neurological diseases
- ECOG recording in rats
- Brain injury models
- Spinal cord injury models
- Parkinson's disease models
- Alzheimer's disease models
- Epilepsy animal models
- Behavioral tests (open field, MNSS, ...)
- Cognitive tests (Morris Water Maze, Shuttle box, T maze, ...)
- Stereotactic surgery in rats and mice
- Rat brain microsurgery
- Immunocytochemistry
- Immunohistochemistry
- Preparation for SEM (scanning electron microscopy)
- RNA extraction
- Real time PCR
- Zebrafish-based studies

## **Membership**

- Iranian Neuroscience Society
- Shefa Neuroscience Research Center, Tehran, Iran
- SUMS

## **Publications**

1. Sadeghi M, Jafari S, **Aligholi H**, Shayan Z, Keshavarz Bahaqiqat A, Alzheimer's Disease Neuroimaging Initiative (ADNI). Evaluating the Predictive Power of Cognitive Assessment Tools for Cortical Hypometabolism in Alzheimer's Disease. Journal of Rehabilitation Sciences & Research. 2025 Dec 1;12(4):127-37.

2. Torabi S, Zeraatpisheh Z, Anjamrooz SH, Ghanbari A, Raza SS, **Aligholi H**, Azari H. Synergistic effects of neural stem cells and ibrutinib on neural tissue repair and functional recovery in a contusion mouse model of spinal cord injury. *Neuroscience Letters*. 2025 Feb 28;850:138149.
3. Hosseini S, Hosseini S, **Aligholi H**, Salehi M. Embryo vitrification impacts learning and spatial memory by altering the imprinting genes expression level in the mouse offspring'hippocampus. *Scientific Reports*. 2025 Feb 13;15(1):5419.
4. Derisfard F, Jafarinezhad Z, Azarpira N, Namavar MR, **Aligholi H**. Exosomes obtained from human adipose-derived stem cells alleviate epileptogenesis in the pentylenetetrazol model of epilepsy. *NeuroReport*. 2025 Feb 5;36(3):161-8.
5. Safari MA, Koushkie Jahromi M, **Aligholi H**, Rezaei R, Zeraatpisheh Z, Foroozan P, Separdanasab A. Swimming Training Prevents Stress-Induced Spatial Memory Impairment by Reducing Neurodegenerative Changes in Hippocampus. *Biochemistry Research International*. 2025;2025(1):9980466.
6. Vahedi M, Azizi K, Hosseinpour A, Raz A, **Aligholi H**, Hoseini M, Soltani A. Analysis of lethal and sublethal doses: Comparative toxicity of three commonly used pesticides on *Blattella germanica*, an important allergen and vector of pathogens. *Heliyon*. 2024 Dec 15;10(23).
7. Zahediannasb R, Nami M, Hosseini M, Abolhasani Foroughi A, Ghodsinejad A, **Aligholi H**. The Effect of Frontopolar Cortical Cooling on Working Memory Capacity in Healthy Adults: A Randomized Controlled Trial Study. *Journal of Rehabilitation Sciences & Research*. 2024 Dec 1;11(4):221-7.
8. Dara M, Karimi Z, Dianatpour M, **Aligholi H**. Breaking Barriers: A Reliable Method for RNA Extraction in Zebrafish Neurodegenerative Research. *OBM Neurobiology*. 2024 Sep;8(3):1-7.
9. Hosseini K, Fallahi J, **Aligholi H**, Heidari Z, Nadimi E, Safari F, Sisakht M, Atapour A, Khajeh S, Tabei SM, Razban V. Creation of an in vitro model of GM1 gangliosidosis by CRISPR/Cas9 knocking-out the GLB1 gene in SH-SY5Y human neuronal cell line. *Cell Biochemistry and Function*. 2024 Aug;42(6):e4102.
10. Karimi Z, Zarifkar A, Mirzaei E, Dianatpour M, Dara M, **Aligholi H**. Therapeutic effects of nanosilibinin in valproic acid-zebrafish model of autism spectrum disorder: Focusing on Wnt signaling pathway and autism spectrum disorder-related cytokines. *International Journal of Developmental Neuroscience*. 2024 Aug;84(5):454-68.
11. Shamsi, Fatemeh, **Hadi Aligholi**, Mohammad Taghi Karimi, Afshin Borhani-Haghighi, and Mohammad Nami. "Quantitative EEG for the Monitoring of Walking Recovery in Chronic Stroke Patients Receiving Action Observation Training." *Journal of Motor Behavior*, 2024.
12. Zahra Rahimian, SeyedHassan Sadrian, Mina Shahisavandi, **Hadi Aligholi**, Mohammad M. Zarshenas, Alireza Abyar, Zahra Zeraatpisheh, Ali A. Asadi-Pooya,

- "Antiseizure Effects of Peganum harmala L. and Lavandula angustifolia", BioMed Research International, vol. 2023
13. Javad Momeni, Mehdi Hadi Jafari, **Hadi Aligholi**, Sajad Sahab Negah. The Split Well: a New Method for Comparing Nano-Scaffolds in Electron Microscopy. The Neuroscience Journal of Shefaye Khatam. Volume 11. 2023.
  14. Z Karimi, A Zarifkar, M Dianatpour, E Mirzaei, M Dara, **H Aligholi**. Finding a Proper Valproic Acid-Based Autism Spectrum Disorder Model in Zebrafish: Early and Long-term Neurobehavioral Studies. Iran J Psychiatry Behav Sci. 2023;17(3)
  15. Taghadosi, Z., Zarifkar, A., Razban, V., **Aligholi H**. The effect of chronic stress and its preconditioning on spatial memory as well as hippocampal LRP1 and RAGE expression in a streptozotocin-induced rat model of Alzheimer's disease. *Metab Brain Dis* **37**, 2699–2710 (2022).
  16. Shamsi F, Nami M, **Aligholi H**, Borhani-Haghighi A, Kavyani M, Karimi MT. The effect of action observation training on gait and balance of patients with neurological and musculoskeletal disorders: A systematic review. *British Journal of Occupational Therapy*. 2022;85(11):842-858.
  17. Karami N, **Aligholi H**, Rahimi M, Azari H, Kalantari T. G Protein Coupled Receptors Potentially Involved in Oligodendrogenesis: A Gene Expression Analysis. Iran J Public Health. 2022
  18. Z Zeraatpisheh, F Shamsi, P Sarkoohi, S Torabi, H Alipour, **H Aligholi**. Effects of FTY720 on Neural Cell Behavior in Two and Three-Dimensional Culture and in Compression Spinal Cord Injury. *Cel. Mol. Bioeng.* **15**, 331–340 (2022).
  19. Karami N, Azari H, Rahimi M, **Aligholi H**, Kalantari T. A study on the effect of JNJ-10397049 on proliferation and differentiation of neural precursor cells. Anat Cell Biol. 2022
  20. Bagheri Z, Shamsi F, Zeraatpisheh Z, Salmannejad M, Soltani A, **Aligholi H**. The Effect of Different Concentrations of Methylprednisolone on Survival, Proliferation, and Migration of Neural Stem/Progenitor Cells. Basic Clin Neurosci. 2022
  21. Fatemeh Shamsi, Mohammad Nami, **Hadi Aligholi**, Afshin Borhani-Haghighi, Roohollah Zahediannasb, Mahshid Hekmatnia, Mohammad Taghi Karimi. The effects of action observation training as an add-on rehabilitation strategy on the walking ability of patients with chronic stroke. Journal of Bodywork and Movement Therapies. Volume 29, 2022.
  22. Zeraatpisheh Z, Mirzaei E, Nami M, Alipour H, Ghasemian S, Azari H, **Aligholi H**. A New and Simple Method for Spinal Cord Injury Induction in Mice. Basic Clin Neurosci. 2022
  23. M.S. Shahpari, M.R.N. Namavar, L.K.D. Kamali Dolatabadi, H.A. **Aligholi**, M.E. Emamghoreishi. Morphological changes in the substantia nigra pars reticulata of the mice during kindling. Neuroscience Letters, Volume 764, 2021.

24. Torabi S, Anjamrooz SH, Zeraatpisheh Z, **Aligholi H**, Azari H. Ibrutinib reduces neutrophil infiltration, preserves neural tissue and enhances locomotor recovery in mouse contusion model of spinal cord injury. *Anat Cell Biol.* 2021 Sep 30;54(3):350-360.
25. Zahra Zeraatpisheh, Esmaeil Mirzaei, Mohammad Nami, Hamed Alipour, Marzieh Mahdavi-pour, Parisa Sarkoohi, Somayyeh Torabi, Hassan Azari, **Hadi Aligholi**. Local delivery of fingolimod through PLGA nanoparticles and PuraMatrix-embedded neural precursor cells promote motor function recovery and tissue repair in spinal cord injury. Volume 54, 2021.
26. Zohreh Taghadosi, Asadollah Zarifkar, Vahid Razban, Maryam Owjifard, **Hadi Aligholi**. Effect of chronically electric foot shock stress on spatial memory and hippocampal blood brain barrier permeability, *Behavioural Brain Research*, Volume 410, 2021.
27. Rezaei A, **Aligholi H**, Zeraatpisheh Z, Gholami A, Mirzaei E. Collagen/chitosan-functionalized graphene oxide hydrogel provide a 3D matrix for neural stem/precursor cells survival, adhesion, infiltration and migration. *Journal of Bioactive and Compatible Polymers.* 2021;36(4):296-313.
28. **Hadi Aligholi**, Maryam Safahani, Ali A. Asadi-Pooya. Stem cell therapy in patients with epilepsy: A systematic review. *Clinical Neurology and Neurosurgery*, Volume 200, 2021.
29. Abdolahi, S., **Aligholi, H.**, Khodakaram-Tafti, A. *et al.* Improvement of Rat Spinal Cord Injury Following Lentiviral Vector-Transduced Neural Stem/Progenitor Cells Derived from Human Epileptic Brain Tissue Transplantation with a Self-assembling Peptide Scaffold. *Mol Neurobiol* **58**, 2481–2493 (2021).
30. Mahdavi-pour M, Hassanzadeh G, Seifali E, Mortezaee K, **Aligholi H**, Shekari F, et al. Effects of neural stem cell-derived extracellular vesicles on neuronal protection and functional recovery in the rat model of middle cerebral artery occlusion. *Cell biochemistry and function.* 2020;38(4):373-83.
31. Alipour M, Reza Bigdeli M, **Aligholi H**, Rasouljan B, Khaksarian M. Sustained release of silibinin-loaded chitosan nanoparticle induced apoptosis in glioma cells. *Journal of Biomedical Materials Research Part A.* 2020;108(3):458-69.
32. Safari MA, Koushkie Jahromi M, Rezaei R, **Aligholi H**, Brand S. The Effect of Swimming on Anxiety-Like Behaviors and Corticosterone in Stressed and Unstressed Rats. *International Journal of Environmental Research and Public Health.* 2020;17(18):6675.
33. Abdolahi S, Khodakaram-Tafti A, **Aligholi H**, Ziaei S, Ghadiri MK, Stummer W, et al. Lentiviral vector-mediated transduction of adult neural stem/progenitor cells isolated from the temporal tissues of epileptic patients. *Iranian Journal of Basic Medical Sciences.* 2020;23(3):354.

34. Mokhtari T, Mahahakizadeh S, **Aligholi H**, Ijaz S, Noori L, Hassanzadeh G. Triiodothyronine Improves Morphology and Up-regulates seladin-1 of neurospheres extracted from Subventricular Zone in Streptozotocin-induced rat model of Alzheimer's disease. *Journal of Contemporary Medical Sciences*. 2020;6(1).
35. Shamsi F, Zeraatpisheh Z, **Aligholi H**. The fate of neural stem/progenitor cells exposed to different concentrations of methylprednisolone. *Journal of Advanced Medical Sciences and Applied Technologies*. 2020;5(1).
36. Safahani M, **Aligholi H**, Asadi-Pooya AA. Management of antiepileptic drug-induced nutrition-related adverse effects. *Neurological Sciences*. 2020:1-12.
37. FatemehShamsi, Zahra Zeraatpisheh, HamedAlipour, Abbas Nazari&**Hadi Aligholi**. The effects of minocycline on proliferation, differentiation and migration of neural stem/progenitor cells. *International Journal of Neuroscience*, DOI:10.1080/00207454.2019.1699083
38. Safahani M, **Aligholi H**, Noorbakhsh F, Djalali M, Pishva H, Mousavi SMM, et al. Switching from high-fat diet to foods containing resveratrol as a calorie restriction mimetic changes the architecture of arcuate nucleus to produce more newborn anorexigenic neurons. *European journal of nutrition*. 2019;58(4):1687-701.
39. Jafarian M, Mousavi SMM, Alipour F, **Aligholi H**, Noorbakhsh F, Ghadipasha M, et al. Cell injury and receptor expression in the epileptic human amygdala. *Neurobiology of disease*. 2019;124:416-27.
40. Zarifkar AH, Zarifkar A, Nami M, Rafati A, **Aligholi H**, Vafae F. Ameliorative Effects of Different Transcranial Electrical Stimulation Paradigms on the Novel Object Recognition Task in a Rat Model of Alzheimer Disease. *Galen Medical Journal*. 2019;8:1440.
41. Shahpari M, **Aligholi H**, Namavar MR, Vafae F, Emamghoreishi M. Improved Stage Categorization of PTZ-Induced Kindling and Late Enhanced Neurogenesis in PTZ Kindled Mice. *Galen Medical Journal*. 2019;8:1511.
42. Ghodratiostani I, Kamali A-M, Tahamtan M, Mohammadi N, **Aligholi H**, Nami M. The Substrates of Integrated Neurocognitive Rehabilitation Platforms (INCRPs). *arXiv preprint arXiv:190602558*. 2019.
43. Kamali A-M, Saadi ZK, Yahyavi S-S, Zarifkar A, **Aligholi H**, Nami M. Transcranial direct current stimulation to enhance athletic performance outcome in experienced bodybuilders. *PloS one*. 2019;14(8).
44. Alipour M, Bigdeli M, **Aligholi H**, Rasouljan B, Khaksarian M. Sustained Release of Silibinin loaded in Chitosan Nanoparticle Induced Apoptosis in Glioma Cells. *Journal of Biomedical Materials Research Part A*. 2019.
45. Sarkoobi P, **Aligholi H**, Amiri A, Mahdavi-pour M, Zeraatpisheh Z, Emamghoreishi M. Quercetin enhanced proliferation of neural stem/progenitor cells through Nrf2-proteasome pathway. *Physiology & Pharmacology*. 2019;23(3).

46. Safahani M, **Aligholi H**, Noorbakhsh F, Djalali M, Pishva H, Mousavi SMM, et al. Resveratrol promotes the arcuate nucleus architecture remodeling to produce more anorexigenic neurons in high-fat-diet-fed mice. *Nutrition*. 2018;50:49-59.
47. Alipour A, Seifzadeh S, **Aligholi H**, Nami M. QEEG-based neural correlates of decision making in a well-trained eight year-old chess player. *Journal of integrative neuroscience*. 2018;17(3):297-305.
48. Ghasemi S, **Aligholi H**, Koulivand PH, Jafarian M, Ravandi HH, Ghadiri MK, et al. Generation of motor neurons from human amygdala-derived neural stem-like cells. *Iranian journal of basic medical sciences*. 2018;21(11):1155.
49. Zarifkar A, Zarifkar A, Nami M, Rafati A, **Aligholi H**. The Comparison of the Effects of Different Transcranial Electrical Stimulation (tES) Paradigms on Beta-Amyloid (A $\beta$  25-35)-Induced Memory Impairment upon Morris Water Maze Task in Male Rats. *J NeurolNeurosci*. 2018;9(4):265.
50. Abdolahi S, BorhaniHaghighi M, **Aligholi H**. Physical and Chemical Properties of DNA Ligases. *The Neuroscience Journal of Shefaye Khatam*. 2017;5(2):40-53.
51. Tavakol S, Saber R, Hoveizi E, **Aligholi H**, Ai J, Rezayat SM. Chimeric selfassembling nanofiber containing bone marrow homing peptide's motif induces motor neuron recovery in animal model of chronic spinal cord injury; an in vitro and in vivo investigation. *Molecular neurobiology*. 2016;53(5):3298-308.
52. Tavakol S, Saber R, Hoveizi E, Tavakol B, **Aligholi H**, Ai J, et al. Selfassembling peptide nanofiber containing long motif of laminin induces neural differentiation, tubulin polymerization, and neurogenesis: in vitro, ex vivo, and in vivo studies. *Molecular neurobiology*. 2016;53(8):5288-99.
53. Eslamizade MJ, Madjd Z, Rasoolijazi H, Saffarzadeh F, Pirhajati V, **Aligholi H**, et al. Impaired memory and evidence of histopathology in CA1 pyramidal neurons through injection of A $\beta$ 1-42 peptides into the frontal cortices of rat. *Basic and clinical neuroscience*. 2016;7(1):31.
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55. **Aligholi H**, Rezayat SM, Azari H, Mehr SE, Akbari M, Mousavi SMM, et al. Preparing neural stem/progenitor cells in PuraMatrix hydrogel for transplantation after brain injury in rats: A comparative methodological study. *Brain research*. 2016;1642:197-208.
56. Torabi-Nami M, Mehrabi S, Aligholi H, Zare B, Derman S. The Sleep Position 'Aid and Toll' in Obstructive Sleep Apnea: A Lung-Brain Axis Perspective. *Austin J Sleep Disord*. 2016;3(1):1024.
57. Abdolahi S, Aligholi H, Shirian S. Cell Therapy Strategies in the Repair of Spinal Cord Injury: Pros and Cons. *The Neuroscience Journal of Shefaye Khatam*. 2016;4(1):55-66.

58. **Aligholi H**, Hassanzadeh G, Gorji A, Azari H. A novel biopsy method for isolating neural stem cells from the subventricular zone of the adult rat brain for autologous transplantation in CNS injuries. *Injury Models of the Central Nervous System: Humana Press, New York, NY; 2016. p. 711-31.*
59. SajadSahabNegah ZK, **Hadi Aligholi**, Shahin Mohammad Sadeghi, Sayed Mostafa Modarres Mousavi, HadiKazemi, Ali Jahanbazi Jahan-Abad, Ali
60. Gorji. Enhancement of Neural Stem Cell Survival, Proliferation, Migration, and Differentiation in a Novel Self-Assembly Peptide Nanofibber Scaffold. *Molecular Neurobiology. 2016:1-13.*
61. Negah SS, **Aligholi H**, Khaksar Z, Kazemi H, Mousavi SMM, Safahani M, et al. Survival, proliferation, and migration of human meningioma stem-like cells in a nanopptide scaffold. *Iranian journal of basic medical sciences. 2016;19(12):1271.*
62. Khaksarian M, Mostafavi H, Soleimani M, Karimian SM, Ghahremani MH, Joghataee MT, **Aligholi H**, Khorashadizadeh M, et al. Regulation of connexin 43 and microRNA expression via  $\beta$ 2-adrenoceptor signaling in 1321N1 astrocytoma cells. *Molecular medicine reports. 2015;12(2):1941-50.*
63. SahabNegah S, Mohammad Sadeghi S, Kazemi H, Modarres Mousavi M, **Aligholi H**. Effect of injured brain extract on proliferation of neural stem cells cultured in 3-dimensional environment. *The Neuroscience Journal of Shefaye Khatam. 2015;3(1):49-56.*
64. Attari F, Zahmatkesh M, **Aligholi H**, Mehr SE, Sharifzadeh M, Gorji A, et al. Curcumin as a double-edged sword for stem cells: dose, time and cell type-specific responses to curcumin. *DARU Journal of Pharmaceutical Sciences. 2015;23(1):33.*
65. **Aligholi H**, Safahani M. Experimental models of brain injury. *Journal of Shefa Khatam Neuroscience. 2015;3:69-76.*
66. Mozhdeh HP, Zeynali B, **Aligholi H**, Radgerdi IK, Negah SS, Hassanzadeh G. The effect of intracerebroventricular administration of streptozocin on cell proliferation in subventricular zone stem cells in a rat model of alzheimer's disease. *Neurosci J Shefaye Khatam. 2015;3:80-6.*
67. **Aligholi H**, Hassanzadeh G, Azari H, Rezayat SM, Mehr SE, Akbari M, et al. A new and safe method for stereotactically harvesting neural stem/progenitor cells from the adult rat subventricular zone. *Journal of neuroscience methods. 2014;225:81-9.*
68. Tavakol S, **Aligholi H**, Gorji A, Eshaghabadi A, Hoveizi E, Tavakol B, et al. Thermogel nanofiber induces human endometrial-derived stromal cells to neural differentiation: in vitro and in vivo studies in rat. *Journal of Biomedical Materials Research Part A. 2014;102(12):4590-7.*
69. Tavakol S, **Aligholi H**, Eshaghabadi A, Mousavi M, Ai J, Rezayat M. Investigation on the motor recovery effect of a self-assembling nanofiber in the spinal cord injury model in rat. *Shefaye Khatam. 2014;2(2):41-6.*

70. SahabNegah S, Khaksar Z, Kazemi H, **Aligholi H**, Safahani M, Modarres Mousavi M, et al. The role of dopamine receptors during brain development. The Neuroscience Journal of Shefaye Khatam. 2014;2(3):65-76.
71. **Aligholi H**, Safahani M, Sarkaki A, Amani R. Protective effect of soy on movement disorders induced by parkinson disease in ovariectomized animal model. The Neuroscience Journal of Shefaye Khatam. 2013;1(3):5-10.
72. Safahani M, Amani R, **Aligholi H**, Sarkaki A, Badavi M, ZandMoghaddam A, et al. Effect of different doses of soy isoflavones on spatial learning and memory in ovariectomized rats. Basic and Clinical Neuroscience. 2011;2(4):12-8.
73. Sarkaki A, Badavi M, **Aligholi H**, Moghaddam AZ. Preventive effects of soy meal (+/-isoflavone) on spatial cognitive deficiency and body weight in an ovariectomized animal model of Parkinson's disease. Pakistan journal of biological sciences: PJS. 2009;12(20):1338-45.
74. Sarkaki A, Amani R, Badavi M, Moghaddam AZ, **Aligholi H**, Safahani M, et al. Pre-treatment effect of different doses of soy isoflavones on spatial learning and memory in an ovariectomized animal model of Alzheimer's disease. Pak J Biol Sci. 2008;11(8):1114-9.

### Books:

1. Injury Models of the Central Nervous System: p. 711-31.
2. مروری بر پیوند کبد.
3. سلول های بنیادی عصبی و کاربردهای بالینی
4. نکات مهم نورواناتومی

### Patent:

۱۳۹۸۵.۱۴۰۰۰۳۰۰۷.۰۲۶ –

هیدروژل در جا تشکیل شونده ای پپتیدی حاوی ذرات پلی لاکتیک کو گلایکولیک اسید بارگذاری شده با داروی فینگولیکود جهت استفاده در ضایعه نخاعی

### Abstracts and Presentations

1. Three-Dimensional Transplantation of Adult Neural Stem Cells in an Acute Brain Injury Model. **Oral presentation** at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.

2. A controllable brain injury model with a defined size for evaluation of tissue engineered products. **Workshop presentation** at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.
3. An animal model of brain injury for evaluation of tissue engineering treatment strategies. **Workshop presentation** at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.
4. Experimental models of spinal cord injury. **Workshop presentation** at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.
5. Cultivation of neural stem-like cells from adult human amygdala. Presented at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.
6. Isolation of neurosphere-like bodies from adult human amygdala. Presented at 2<sup>th</sup> international congress of neurotrauma. Tehran. Iran. 2015.
7. Basics of neuroscience. **Oral presentation** at the 2<sup>th</sup> basic and clinical neuroscience congress. Tehran. Iran. 2013.
8. Induced pluripotent stem (iPS) cells will produce a new hope for easing treatment of neurologic disease in the future. Presented at the 2<sup>th</sup> international Neurosurgery Congress. Mashhad, Iran, 2013.
9. Are adult stem cells in combination with living tissue better than other types of stem cells for medical application? Presented at the 2<sup>th</sup> international Neurosurgery Congress. Mashhad, Iran, 2013.
10. A novel tissue engineering method for treatment of brain injury. **Oral presentation** at the first international Neurosurgery Congress. Mashhad, Iran, July 2012.
11. Stereotactically neural stem cells harvesting in rat: a putative method in future autotransplantation. Presented at the first international Neurosurgery Congress. Mashhad, Iran, July 2012.

12. Cell therapy in cerebrospinal injuries. **Oral presentation** at the first cerebrospinal injury seminar. Mashhad, Iran, June 2011.
13. Pre-treatment effect of different doses of soy isoflavones stiffness in the ovariectomized rat model of Parkinson's disease. Presented at the 19<sup>th</sup> Iranian Congress of Physiology and Pharmacology. Mashhad, Iran, November 2009.
14. The effect of different doses of soy ( $\pm$ isoflavones) on the dementia of Parkinson's disease in ovariectomized rats. Presented at the 18<sup>th</sup> Iranian Congress of Physiology and Pharmacology. Mashhad, Iran, August 2007.
15. The effect of different doses of soy ( $\pm$ isoflavones) on the dementia of Alzheimer's disease in ovariectomized rats. Presented at the 18<sup>th</sup> Iranian Congress of Physiology and Pharmacology. Mashhad, Iran, August 2007.
16. Pre-treatment effect of different doses of soy isoflavones on spatial learning and memory in the ovariectomized rat model of Parkinson's disease. Presented at the 9<sup>th</sup> Congress of Nutrition. Tabriz, Iran, August 2006.
17. Treatment effect of different doses of soy isoflavones on spatial learning and memory in the ovariectomized rat model of Parkinson's disease. Presented at the 9<sup>th</sup> Congress of Nutrition. Tabriz, Iran, August 2006.
18. Effects of different doses of soy isoflavones on learning and spatial memory in ovariectomized rats. Presented at the 9<sup>th</sup> Congress of Nutrition. Tabriz, Iran, August 2006.
19. Effects of different doses of soy isoflavones on postmenopausal body weight in ovariectomized rats. Presented at the 9<sup>th</sup> Congress of Nutrition. Tabriz, Iran, August 2006.
20. The relationship between calcium intake and body mass index and blood lipids in adult women. Presented at the 9<sup>th</sup> Congress of Nutrition. Tabriz, Iran, August 2006.
21. Anti spasmotic effect of *Vitis vinifera* on rat colon. Presented at the 17<sup>th</sup> Iranian Congress of Physiology and Pharmacology. Kerman, Iran, October 2005.

## **Workshops**

1. Participation in Educational Workshop "Behavioral methods in neuroscience". 2009, Tehran University of Medical Sciences, Tehran, Iran.
2. Participation in Educational Workshop "Neurostereology ". 2009, Iran University of Medical Sciences, Tehran, Iran.
3. Participation in Educational Workshop " Basics human and animal cell culture". 2011, Iranian Biological Resource Center, Tehran, Iran.
4. Participation in Educational Workshop "Cloning and molecular analysis ". 2011, Iranian Biological Resource Center, Tehran, Iran.
5. Participation in Educational Workshop "How to wright articles ". 2011, Tehran University of Medical Sciences, Tehran, Iran.
6. Participation in Educational Workshop "How to publish articles ". 2011, Tehran University of Medical Sciences, Tehran, Iran.
7. Participation in Educational Workshop "Critical review of articles ". 2011, Tehran University of Medical Sciences, Tehran, Iran.
8. Participation in Educational Workshop "Electro-spinning and its applications in Medical Sciences". 2012, Tehran University of Medical Sciences, Tehran, Iran.

## **Research projects**

1. Evaluating the anti-inflammatory and anti-oxidative effects of intranasal administration of extracellular vesicles isolated from human adipose-derived stem cells in pilocarpine-induced mouse model of epilepsy (2022).
2. Evaluation of the effects of conditioned medium of BDNF-overexpressing human adipose-derived stem cells on inflammation in a mouse model of pilocarpine epilepsy (2022).
3. Evaluation of anti-inflammatory effects of adipose-derived extracellular vesicles in the hippocampus of high fat diet-fed mice (2021).
4. Evaluation the effect of mouse adipose derived extracellular vesicles on hippocampal damaged induced by high fat diet (2021)
5. The nanosilbinin effect on epileptic behaviors and expression of Wnt/  $\beta$  catenin signaling pathway related-genes in the pentylentetrazole-induced epileptic model of zebrafish (2021).
6. Comparison of depression, anxiety and stress levels in basic science medical students and clinical medical students during COVID-19 pandemic (2020).
7. Effect of Rutagraveolens extract on seizure behaviors in the mice kindling model of epilepsy (2020)
8. Effect of different doses of methylprednisolone on behavior of neural stem cells (2015).
9. Evaluation of FTY720 effects on survival, proliferation and migration of neural stem cells in a tridimensional environment (2017).
10. Evaluation of neural stem cells differentiation in the presence of different doses of methylprednisolone (2016).
11. Determining the fate of neural stem cells in presence of different doses of fingolimod (2017).
12. Effect of CRISPR/Cas9 mediated GPR37L1 gene knock-out in oligodendrocyte progenitor cells on their differentiation to oligodendrocytes (2017).
13. Isolation, culture and characterization of cancer stem cells from human glioblastoma multiform tumor tissues (2018).

14. Evaluation of survival, proliferation and migration of neural stem/ progenitor cells exposed to different doses of Minocycline (2017).

### **Thesis supervision**

1. Investigating Homotopic, Homotopic and Structural -Functional Connectome Alterations in Children with ADHD using fMRI and sMRI Data for the Purpose of Designing a Machine Learning -Based Model. 2025 (PhD Thesis supervisor).
2. Design and Development of an AI-Powered Intelligent Recommendation System Integrating Neurocognitive Data for Multimodal and Personalized ADHD Treatment. 2025 (PhD Thesis supervisor).
3. Identifying ideal biomarkers based on the analysis of non-coding RNA microarrays at the transcriptome level and evaluating their efficiency by qRT-PCR method for the early diagnosis of Alzheimer's disease (2022, PhD. Thesis supervisor).
4. Designing a multifaceted Neurofunctional model of buying behavior A neuromarketing approach (2021, PhD. Thesis supervisor).
5. Evaluating the anticonvulsant and neuroprotective effects of intranasal administration of extracellular vesicles isolated from human adipose-derived stem cells in pilocarpine-induced mouse model of epilepsy (2021, PhD. Thesis supervisor).
6. Evaluation the effects of intranasal administration of conditioned medium from BDNF-overexpressing human adipose-derived mesenchymal stem cells in a mouse model of chronic epilepsy (2021, PhD. Thesis supervisor).
7. DEVELOPMENT OF A CORTICAL-THERMAL STIMULATION DEVICE (CTSD) TO REGULATE FRONTOPOLAR TEMPERATURE AND THE EXAMINATION OF ITS EFFECTS ON COGNITIVE FUNCTIONS, A PSYCHOMETRIC VALIDATION APPROACH (2020, PhD. Thesis supervisor).
8. The evaluation of expression and DNA methylation pattern of imprinted genes involved in neural development, spatial learning and memory and hippocampal cell injury in mouse offspring derived frozen embryo transfer (2019, PhD. Thesis supervisor).

9. The evaluation of nanosilibinin effect on autistic behaviors and expression of autism related-genes in valproic acid zebrafish model of autism spectrum disorder (2019, PhD. Thesis supervisor).
10. The Effect of Swimming Training on Inflammatory Outcomes in the Hippocampus and Learning and Memory in Young Male Rats Exposed to Chronic Stress (2018, PhD. Thesis advisor).
11. The effect of chronic stress on spatial memory impairment and accumulation of amyloid beta and expression of LRP1 and RAGE in animal model of Alzheimer disease (2018, PhD. Thesis supervisor).
12. Assessment of performance in experienced athletes (bodybuilders) following transcranial direct current stimulation; A quantitative electroencephalography, functional near-infrared spectroscopy and surface electromyography included investigation (2017, PhD. Thesis advisor).
13. Effect of intrathecal Delivery of Nanofingolimod and Transplantation of Puramatrix Embedded Neural Precursor Cells on Motor Function Recovery and Tissue Damage in Contusion Model of Spinal Cord Injury in Mouse (2017, PhD. Thesis supervisor).
14. Evaluation of the effect of silybinin loaded in chitosan and alginate scaffolds on behavior of rat neural progenitor cells and c6 glioma cells (2017, PhD. Thesis advisor).
15. Neuroprotective Effect of Subventricular Zone Derived Extracellular Vesicles on Animal Model of Cerebral ischemia/Reperfusion Brain Injury (2017, PhD. Thesis advisor).
16. The effect of action observation training on kinetic and kinematic parameters of gait and qEEG patterns of chronic stroke patients with hemiparetic gait (2017, PhD. Thesis supervisor).
17. Evaluating the effects of ibrutinib administration on motor function and survival, fate and migration of neural stem cells in contusion model of spinal cord injury in male rats (2017, PhD. Thesis supervisor).
18. The effect of nanovibration on the survival and maturation of neural stem cells derived neuroblasts (2017, MSc. Thesis supervisor).
19. Assessing the expression of endothelin receptors on Neural Stem Cells and the effect of Bosentan and Suvorexant drugs on differentiation of NSCs (2017, MSc. Thesis supervisor).
20. Three-dimensional transplantation of human neural stem cells with PuraMatrix in an animal model of spinal cord injury (2016, PhD. Thesis advisor).

21. Investigating the Effect of Transcranial Electrical Stimulation (tES) Paradigms on Beta-Amyloid (A $\beta$  1-42)-Induced Memory Impairment and Hippocampal A $\beta$ , BDNF, TrkB, AKT, GSK3 $\beta$  Alterations in Male Rats (2015, PhD. Thesis advisor).
22. The Effect of Quercetin on Neurogenesis, Proteasome Activity & Nrf2 Protein Levels in Neural Stem/Progenitor Cells of Adult Mice Subventricular Zone (2015, PhD. Thesis supervisor).
23. Evaluation of the Proliferation Capacity of Neural Stem/ Progenitor Cells (NS/PCs) of Subventricular Zone (SVZ) in Pentylentetrazole-Induced Kindled Mice in vitro and in vivo and it's Relation to Proteasomal Activity in vitro (2015, PhD. Thesis supervisor).

### **Medical Journalism**

- Editorial review board member, Journal of Shefaye khatam , Tehran, Iran.
- Editorial review board member, JAMSAT, Shiraz, Iran.
- Reviewer, Tehran University Medical Journal. Tehran, Iran.
- Reviewer, Cell Biology International Journal, Scotland.
- Reviewer, Brain research,