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)
Mobile: 0917 1032437
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Educational Background

2008-2015 PhD in Neurosciences, at Tehran University of MedicalSciences, Tehran, Iran
2003-2006 MSc in Medical Physiology at AhvazUniversity of MedicalSciences, 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 Assistance 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 (±isoflavone) on spatial learning and memory in an ovariectomized animal model of Parkinson's disease.

Research Activities

- Cell culturing
- Neural tissue engineering
- Embryonic neural stem cells (Rat, Mice)
- Adult neural stem cells (Human, Rat, Mice)
- Neurosphere assay
- 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. FatemehShamsi, Zahra Zeraatpisheh, HamedAlipour, Abbas Nazari&**Hadi Aligholi.** The effects of minocycline on proliferation, differentiation andmigration of neural stem/progenitor cells. International Journal of Neuroscience, DOI:10.1080/00207454.2019.1699083
2. 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.

3. 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.
4. Zarifkar AH, Zarifkar A, Nami M, Rafati A, **Aligholi H**, Vafaee 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.
5. Shahpari M, **Aligholi H**, Namavar MR, Vafaee F, Emamghoreishi M. Improved Stage Categorization of PTZ-Induced Kindling and Late Enhanced Neurogenesis in PTZ Kindled Mice. Galen Medical Journal. 2019;8:1511.
6. Ghodratitoostani 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.
7. 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).
8. Alipour M, Bigdeli M, **Aligholi H**, Rasoulian B, Khaksarian M. Sustained Release of Silibinin loaded in Chitosan Nanoparticle Induced Apoptosis in Glioma Cells. Journal of Biomedical Materials Research Part A. 2019.
9. Sarkoohi P, **Aligholi H**, Amiri A, Mahdavipour M, Zeraatpisheh Z, Emamghoreishi M. Quercetin enhanced proliferation of neural stem/progenitor cells through Nrf2-proteasome pathway. Physiology & Pharmacology. 2019;23(3).
10. 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.
11. 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.
12. 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.

13. 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 (Aβ 25-35)-Induced Memory Impairment upon Morris Water Maze Task in Male Rats. J NeurolNeurosci. 2018;9(4):265.
14. Abdolahi S, BorhaniHaghighi M, **Aligholi H**. Physical and Chemical Properties of DNA Ligases. The Neuroscience Journal of Shefaye Khatam. 2017;5(2):40-53.
15. Tavakol S, Saber R, Hoveizi E, **Aligholi H**, Ai J, Rezayat SM. Chimeric self-assembling 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.
16. Tavakol S, Saber R, Hoveizi E, Tavakol B, **Aligholi H**, Ai J, et al. Self-assembling 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.
17. 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 Aβ1-42 peptides into the frontal cortices of rat. Basic and clinical neuroscience. 2016;7(1):31.
18. Attari F, Sharifi ZN, Movassaghi S, **Aligholi H**, Alizamir T, Hassanzadeh G. Neuroprotective effects of curcumin against transient global ischemia are dose and area dependent. Archives of Neuroscience. 2016;3(2).
19. **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.
20. 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.
21. 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.

22. **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.
23. SajadSahabNegah ZK, **Hadi Aligholi**, Shahin Mohammad Sadeghi, Sayed Mostafa Modarres Mousavi, HadiKazemi, Ali Jahanbazi Jahan-Abad, Ali Gorji. Enhancement of Neural Stem Cell Survival, Proliferation, Migration, and Differentiation in a Novel Self-Assembly Peptide Nanofibber Scaffold. Molecular Neurobiology. 2016:1-13.
24. 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 nanopeptide scaffold. Iranian journal of basic medical sciences. 2016;19(12):1271.
25. 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 β2-adrenoceptor signaling in 1321N1 astrocytoma cells. Molecular medicine reports. 2015;12(2):1941-50.
26. 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.
27. 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.
28. **Aligholi H**, Safahani M. Experimental models of brain injury. Journal of Shefa Khatam Neuroscience. 2015;3:69-76.
29. 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.
30. **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.

31. 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.
32. 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.
33. 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.
34. **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.
35. 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.
36. 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: PJBS. 2009;12(20):1338-45.
37. 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. نکات مهم نورو آناتومی
3. مروری بر پیوند کبد
4. سلول های بنیادی عصبی و کاربردهای درمانی آنها

Abstracts and Presentations

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

3. An animal model of brain injury for evaluation of tissue engineering treatment strategies. **Workshop presentation** at 2th international congress of neurotrauma. Tehran. Iran. 2015.

4. Experimental models of spinal cord injury.**Workshop presentation** at 2th international congress of neurotrauma. Tehran. Iran. 2015.

5. Cultivation of neural stem-like cellsfrom adult human amygdala. Presented at2th international congress of neurotrauma. Tehran. Iran. 2015.

6. Isolation of neurosphere-like bodies from adult human amygdala. Presented at2th international congress of neurotrauma. Tehran. Iran. 2015.

7. Basics of neuroscience. **Oral presentation** at the 2th basic and clinical neuroscience congress. Tehran. Iran. 2013.

8. Induced pluripotent stem (iPS) cells will produce a new hope for easing treatment ofneurologic disease in the future. Presented at the 2th internationalNeurosergury Congress. Mashhad, Iran, 2013.

9. Are adult stem cells in combination with living tissue better than other types of stem cellsfor medical application? Presented at the 2th internationalNeurosergury Congress. Mashhad, Iran, 2013.

10. A novel tissue engineering method for treatment of brain injury. **Oral presentation** at the first international Neurosergury Congress. Mashhad, Iran, July 2012.

11. Stereotactically neural stem cells harvesting in rat: a putative method in future autotransplantat. Presented at thefirst international Neurosergury 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 differentdosesof soyisoflavonesstiffness in theovariectomizedratmodelof Parkinson's disease. Presented at the 19th Iranian Cogress of Physiology and Pharmacology. Mashhad, Iran, November 2009.

14. The effectof different dosesof soy(±isoflavones)on thedementiaof Parkinson's diseaseinovariectomizedrats. Presented at the 18th Iranian Cogress of Physiology and Pharmacology. Mashhad, Iran, August 2007.

15. The effectof different dosesof soy(±isoflavones)on thedementiaof Alzimer's diseaseinovariectomizedrats. Presented at the 18th Iranian Cogress of Physiology and Pharmacology. Mashhad, Iran, August 2007.

16. Pre-treatment effect of differentdosesof soyisoflavonesonspatial learning and memoryin theovariectomizedratmodelof Parkinson's disease. Presented at the 9thCogress of Nutrition. Tabriz, Iran, August 2006.

17. Treatment effect of differentdosesof soyisoflavonesonspatial learning and memoryin theovariectomizedratmodelof Parkinson's disease. Presented at the 9thCogress of Nutrition. Tabriz, Iran, August 2006.

18. Effects ofdifferent dosesof soyisoflavoneson learning andspatial memoryinovariectomizedrats. Presented at the 9thCogress of Nutrition. Tabriz, Iran, August 2006.

19. Effects ofdifferent dosesof soyisoflavoneson postmenopausal body weight in ovariectomizedrats. Presented at the 9th Cogress of Nutrition. Tabriz, Iran, August 2006.

20. The relationship betweencalcium intakeand body mass indexandblood lipidsin adult women. Presented at the 9th Cogress of Nutrition. Tabriz, Iran, August 2006.

21. Anti spasmotic effect of Vitisvinifera on rat colon. Presented at the 17th Iranian Cogress 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. Effect of different doses of methylprednisolone on behavior of neural stem cells (2015).
2. Evaluation of FTY720 effects on survival, proliferation and migration of neural stem cells in a tridimensional environment (2017).
3. Evaluation of neural stem cells differentiation in the presence of different doses of methylprednisolone (2016).
4. Determining the fate of neural stem cells in presence of different doses of fingolimod (2017).
5. Effect of CRISPR/Cas9 mediated GPR37L1 gene knock-out in oligodendrocyte progenitor cells on their differentiation to oligodendrocytes (2017).
6. Isolation, culture and characterization of cancer stem cells from human glioblastoma multiform tumor tissues (2018).
7. Evaluation of survival, proliferation and migration of neural stem/ progenitor cells exposed to different doses of Minocycline (2017).

Thesis supervision

1. 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).
2. 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).

3. 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).
4. 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).
5. Assessment of performance in experienced athletes (bodybuilders) fallowing transcranial direct current stimulation; A quantitative electroencephalography, functional near-infrared spectroscopy and surface electromyography included investigation (2017, PhD. Thesis advisor).
6. 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).
7. Evaluation of the effect of silybinin loaed in chitosan and alginatescaffolds on behavior ofrat neural progenitor cells and c6 glioma cells (2017, PhD. Thesis advisor).
8. Neuroprotective Effect of Subventricular Zone Derived Extracellular Vesicles on Animal Model of Cerebral ischemia/Reperfusion Brain Injury (2017, PhD. Thesis advisor).
9. 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).
10. Evaluatingthe effects of ibrutinibadministration 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).
11. The effect of nanovibration on the survival and maturation of neural stem cells derived neuroblasts (2017, MSc. Thesis supervisor).
12. 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).
13. Three-dimensional transplantation of human neural stem cells with PuraMatrix in an animal model of spinal cord injury (2016, PhD. Thesis advisor).

14. Investigating the Effect of Transcranial Electrical Stimulation (tES) Paradigms on Beta-Amyloid (Aβ 1-42*)*-Induced Memory Impairment and Hippocampal Aβ, BDNF, TrkB, AKT, GSK3β Alterations in Male Rats (2015, PhD. Thesis advisor).
15. The Effect of Quercetin on Neurogenesis, Proteasome Activity & Nrf2 Protein Levels in Neuarl Stem/Progenitor Cells of Adult Mice Subventricular Zone (2015, PhD. Thesis supervisor).
16. Evaluation of the Proliferation Capacity of Neural Stem/ Progenitor Cells (NS/PCs) of Subventricular Zone (SVZ) in Pentylenetetrazole-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 Shefayekhatam , 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,