Curriculum Vitae

1) Personal information:

First name: Mohammad

Last name: Karimipour

Specialty: Anatomical Sciences

Academic rank: Associate Professor

Department/Research Center: Department of Anatomical Sciences, Faculty of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran

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Short biography

I earned my Ph.D. in Anatomical Sciences from Isfahan University of Medical Sciences in 2014, a pivotal step that set the foundation for my academic and research career. Subsequently, I participated in a transformative year-long research program in Regenerative Neuroscience and Neural Stem Cell Biology at the esteemed Brain Repair Center at the University of Gothenburg, Sweden. This experience equipped me with cutting-edge methodologies and innovative techniques critical for exploring neuroregeneration and the therapeutic potential of neural stem cells in addressing a spectrum of neurological disorders. Currently, I proudly serve as an Associate Professor in the Department of Anatomical Science at Tabriz University of Medical Sciences, where I also contribute to the councils of both the Neuroscience and Applied Cell Science departments. My research is centered on the intricacies of neural stem cell biology and the regeneration of the central nervous system, with a keen focus on

Alzheimer's disease and stroke. I delve into the complex signaling pathways that govern neural stem cell behavior and neural circuits during various developmental stages, homeostasis, and injury responses. Furthermore, I analyze the mechanisms underlying adult neurogenesis and investigate the promising prospects of neuroregeneration through innovative cell therapy strategies.

2) Educational background:

Date	Degree	Institution	Country
2013- 2014	Research course (Neural stem cells and Regenerative neuroscience)	Brain Repair Center, Institute for Neuroscience and Physiology, Gothenburg University, Gothenburg	Sweden
2008-2014	Ph.D. (Anatomical Sciences)	Isfahan University of Medical Sciences	Iran
2000-2004	M.SC (Anatomical Sciences)	Shiraz University of Medical Sciences	Iran
1996-2000	Bachelor of Science (Nursing)	Urmia University of Medical Sciences	Iran

3) Editorial Roles:

A) Associate Editor for Stem Cell Research, Frontiers in Cell and Developmental Biology

B) Associate Editor for Stem Cell Research, Frontiers in Genetics

4) Fields of interest and research area:

1- Neural Stem Cells Biology and Regenerative Neuroscience
2- Adult Neurogenesis
3- Optogenetics and Chemogenetics
4- Neural circuits
5- Neural Tissue Engineering
6- Molecular, Cellular, and Behavioral Neuroscience

5) Publications:

A) Published Articles in International Journals:

1- Seyed Zanyar Athari , Fereshteh Farajdokht , Mohammad Karimipour , Mohammad Reza Alipour , Gisou Mohaddes. Intranasal AdipoRon improves motor function in a rat model of Parkinson's disease by promoting neurogenesis in the nigrostriatal pathway. ***Neuropharmacology.2025,Dec15***,:281:110687.doi:10.1016/j.neuropharm.2015. 110687. Epub 2025 Sep 15.

2- Farzaneh Fazli , Hamid Tayefi Nasrabadi , Reza Rahbarghazi , Saeed Sadigh-Eteghad , Mohammad Ismail Zibaii , Mohammad Shimia , Mohammad Karimipour. A step-by-step approach to minimally photothrombotic ischemic stroke in the hippocampal region that simulates human stroke..***Lasers Med Sci . 2025 Jul 11***;40(1):311. doi: 10.1007/s10103-025-04500-0.

3- Sareh Kazmi, Fatemeh Farokhi-Sisakht, Samin Davoody, Gozal Bahlakeh, Fatemeh Abbaszadeh, Reza Rahbarghazi, Aliakbar Shekarchi, Mohammad Karimipour. Role of autophagy in neurotoxic protein's clearance following post-ischemic stroke: Where we are and what we know? ***Mol Brain. 2025 Jul 8;18(1):****60. doi: 10.1186/s13041-025-01201-1.*

4- Behnaz Mirzaahmadi 1 2, Shahin Ahmadian 1 2, Parinaz Haddadi 3, Parinaz Nezhad-Mokhtari 4, Fereshteh Vaziri Nezamdoust 5, Banafsheh Yalameha 5, Sara Aghakhani Chegeni 5, Somayyeh Rashidi 6, Akbar Mousakhani 2, Emel Sokullu 7, Hajar Shafaei 2, Reza Rahbarghazi # 8 9, Mohammad Karimipour. Neuroangiogenic potential of mesenchymal stem cell extracellular vesicles in ischemic stroke. ***Cell Commun Signal. 2025 Jun*** 7;23(1):272. doi: 10.1186/s12964-025-02286-w.

5- Seyed Zanyar Athari, Rana Keyhanmanesh , Fereshteh Farajdokht , Mohammad Karimipour , Negin Azizifar , Soraya Alimohammadi , Gisou Mohaddes. AdipoRon improves mitochondrial homeostasis and protects dopaminergic neurons by activating the AMPK signalling pathway in the 6-OHDA-lesioned rats. ***Eur J Pharmacol . 2024 Dec*** 15:985:177111. doi: 10.1016/j.ejphar.2024.177111. Epub 2024 Nov 6.

6- Naeimeh Akbari-Gharalari , Sina Khodakarimi , Farshad Nezhadshahmohammad , Mohammad Karimipour , Abbas Ebrahimi-Kalan , Jiagian Wu. Exosomes in neuron-glia communication: A review on neurodegeneration. ***Bioimpacts . 2024***;14(5):30153. doi: 10.34172/bi.2023.30153. Epub 2024 Jan 7.

7- Soheil Zamen Milani, Aysa Rezabakhsh, Mohammad Karimipour, Leila Salimi , Narges Mardi , Maryam Taghavi Narmi, Fatemeh Sadeghsoltani , Ferzane Valioglu , Reza Rahbarghazi. Role of autophagy in the angiogenic potential of vascular pericytes. ***Front Cell Dev Bio*l. 2024 Feb** 6:12:1347857. doi: 0.3389/fcell.2024.1347857. eCollection 2024.

8- Akbari-Gharalari N, Ghahremani-Nasab M, Naderi R, Aliyari-Serej Z, Karimipour M, Shahabi P, Ebrahimi-Kalan A.Improvement of spinal cord injury symptoms by targeting the Bax/Bcl2 pathway and modulating TNF-α/IL-10 using Platelet-Rich Plasma exosomes loaded with dexamethasone. ***AIMS Neurosci. 2023 Nov*** 20;10(4):332-353. doi: 10.3934/Neuroscience.2023026—eCollection 2023.

9- Shabani Z, Farhoudi M, Rahbarghazi R, Karimipour M, Mehrad H. Cellular, histological, and behavioral pathological alterations associated with the mouse model of photothrombotic ischemic stroke. ***J Chem Neuroanat. 2023 Jul***; 130:102261. doi: 10.1016/j.jchemneu.2023.102261.

10- Salimi L, Seyedaghamiri F, Karimipour M, Mobarak H, Mardi N, Taghavi M, Rahbarghazi R. Physiological and pathological consequences of exosomes at the blood-brain-barrier interface. ***Cell Commun Signal. 2023 May*** 19;21(1):118. doi: 10.1186/s12964-023-01142-z.

11- Lotfimehr H, Mardi N, Narimani S, Nasrabadi HT, Karimipour M, Sokullu E, Rahbarghazi R. mTOR signaling pathway in stem cell bioactivities and angiogenesis potential. ***Cell Prolif. 2023 May 8***: e13499. doi: 10.1111/cpr.13499.

12- Hosseini L, Karimipour M, Seyedaghamiri F, Abolhasanpour N, Sadigh-Eteghad S, Mahmoudi J, Farhoudi M. Intranasal administration of mitochondria alleviated cognitive impairments and mitochondrial dysfunction in the photothrombotic model of mPFC stroke in mice. ***J Stroke Cerebrovasc, Dis. 2022***, ***Dec***;31(12):106801. doi: 10.1016/j.

13- Gozal Bahlakeh, Reza Rahbarghazi, Ali Abedelahi, Saeed Sadigh-Eteghad, Mohammad Karimipour. Neurotrophic factor-secreting cells restored endogenous hippocampal neurogenesis through the Wnt/β-catenin signaling pathway in AD model mice. ***Stem Cell Research and Therapy, 2022.Jully***. Online ahead of print.

14- Morteza Heidarzadeh , Emel Sokullu , Sepideh Saghati , Mohammad Karimipour , Reza Rahbarghazi. Insights into the Critical Role of Exosomes in the Brain; from Neuronal Activity to Therapeutic Effects. ***Mol Neurobiol. 2022*** May 16. DOI: 10.1007/s12035-022-02853-z. Online ahead of print.

15- Hijroudi F, Rahbarghazi R, Sadigh-Eteghad S, Bahlakeh G, Hassanpour M, Shimia M, Karimipour M. Neural Stem Cells Secretome Increased Neurogenesis and Behavioral Performance and the Activation of Wnt/β-Catenin Signaling Pathway in Mouse Model of Alzheimer's Disease. ***Neuromolecular Med. 2022*** May 16. DOI: 10.1007/s12017-022-08708-z. Online ahead of print.

16- Zeinab Mazloumi , Raheleh Farahzadi , Ali Rafat , Khadijeh Dizaji Asl , Mohammad Karimipour , Majid Montazer , Ali Akbar Movassaghpour , Alireza Dehnad , Hojjatollah Nozad Charoudeh. Effect of aberrant DNA methylation on cancer stem cell properties. ***Exp Mol Pathol. 2022*** Apr; 125:104757. DOI: 10.1016/j.yexmp.2022.104757

17- Zahra Shabani, Reza Rahbarghazi, Mohammad Karimipour, Tahereh Ghadiri, Roya Salehi, Saeed Sadigh-Eteghad, Mehdi Farhoudi. Transplantation of bioengineered Reelin-loaded PLGA/PEG micelles can accelerate neural tissue regeneration in photothrombotic stroke model of mouse. ***Bioengineering & Translational Medicine***. ***2022***; Jan; 7(1).

18- Asghari Niari S, Rahbarghazi R, Salehi R, Kazemi L, Fathi Karkan S, Karimipour M. Fabrication, characterization and evaluation of the effect of PLGA and PLGA-PEG biomaterials on the proliferation and neurogenesis potential of human neural SH-SY5Y cells. ***Microsc Res Tech. 2021;*** Dec 3.

19- Biomaterials patterning regulates neural stem cells fate and behavior: The interface of biology and material science.Niari SA, Rahbarghazi R, Geranmayeh MH, Karimipour M. ***J Biomed Mater Res A. 2021***; Nov 9.

20-The Restorative Effect of Human Amniotic Fluid Stem Cells on Spinal Cord Injury. Lale Ataei M, Karimipour M, Shahabi P, Pashaei-Asl R, Ebrahimie E, Pashaiasl M. ***Cells. 2021***; Sep 28;10(10):2565.

21- Current knowledge and challenges associated with targeted delivery of neurotrophic factors into the central nervous system: focus on available approaches. Bahlakeh G, Rahbarghazi R, Mohammadnejad D, Abedelahi A, Karimipour M**.** ***Cell & Biosci. 2021***; Oct 12;11(1):181.

22- Application of neurotrophic factor-secreting cells (astrocyte - Like cells) in the in-vitro Alzheimer's disease-like pathology on the human neuroblastoma cells. Jahed FJ, Rahbarghazi R, Shafaei H, Rezabakhsh A, Karimipour M**.** ***Brain Res Bull***. ***2021***; Jul; 172:180-189.

23- Evaluation of the Effect of Hyaluronic Acid-Based Biomaterial Enriched With Tenascin-C on the Behavior of the Neural Stem Cells. Shahi M, Mohammadnejad D, Karimipour M, Rahbarghazi R, Abedelahi A. ***Int J Toxicol. 2021***; May-Jun;40(3):218-225.

24-Evaluation of the neuroprotective effects of Vitamin E on the rat substantia nigra neural cells exposed to electromagnetic field: An ultrastructural study. Shabani Z, Mohammad Nejad D, Ghadiri T, Karimipour M. ***Electromagn Biol Med. 2021***; Jul 3;40(3):428-437.

25-Modulatory properties of extracellular matrix glycosaminoglycans and proteoglycans on neural stem cells behavior: Highlights on regenerative potential and bioactivity. Shabani Z, Ghadiri T, Karimipour M, Sadigh-Eteghad S, Mahmoudi J, Mehrad H, Farhoudi M. ***Int J Biol Macromol. 2021***; Feb 28; 171:366-381.

26- Does the Global Outbreak of COVID-19 or Other Viral Diseases Threaten the

Stem Cell Reservoir Inside the Body? Bagheri HS, Karimipour M, Heidarzadeh M, Rajabi H, Sokullu E, Rahbarghazi R. ***Stem Cell Rev Rep. 2021***; Feb;17(1):214-230.

27- Soltani Zangbar H, Ghadiri T, Vafaee MS, Ebrahimi Kalan A, Karimipour M, Fallahi S, Ghorbani M, Shahabi P. A potential entanglement between the spinal cord and hippocampus: Theta rhythm correlates with neurogenesis deficiency following spinal cord injury in male rats. ***J Neurosci Res. 2020;*** Sep 1. doi: 10.1002/jnr.24719. Online ahead of print.

28- Vafaei A, Rahbarghazi R, Kharaziha M, Avval NA, Rezabakhsh A, Karimipour M. Polycaprolactone fumarate acts as an artificial neural network to promote the biological behavior of neural stem cells. ***J Biomed Mater Res B Appl Biomater. 2020;*** Aug 14. doi: 10.1002/jbm.b.34696. Online ahead of print.

29- Ameri M, Shabaninejad Z, Movahedpour A, Sahebkar A, Mohammadi S, Hosseindoost S, Ebrahimi MS, Savardashtaki A, Karimipour M, Mirzaei H.Biosensors for detection of Tau protein as an Alzheimer's disease marker. ***Int J Biol Macromol. 2020;*** Jun 27; 162:1100-1108. doi: 10.1016/j.ijbiomac.2020.06.239. Online ahead of print.

30-Kazemi L, Rahbarghazi R, Salehi R, Abedelahi A, Niari SA, Karimipour M, Nasrabadi HT.Superior Synaptogenic Effect of Electrospun PLGA-PEG Nanofibers Versus PLGA Nanofibers on Human Neural SH-SY5Y Cells in a Three-Dimensional Culture System. ***J Mol Neurosci. 2020;*** May 21. doi: 10.1007/s12031-020-01596-7. Online ahead of print.

31- Shahi M, Abedelahi A, Mohammadnejad D, Rahbarghazi R, Rasta SH, Karimipour M. Exact location of sensorimotor cortex injury after photochemical modulation; evidence of stroke based on stereological and morphometric studies in mice. ***Lasers Med Sci. 2020;*** Apr 15. doi: 10.1007/s10103-020-03017-y. Online ahead of print.

32- Shahi M, Mohammadnejad D, Karimipour M, Rasta SH, Rahbarghazi R, Elahi AA.Hyaluronic acid and Regenerative medicine: New insights into the stroke therapy.

Curr Mol Med. 2020; Mar 25. doi: 10.2174/1566524020666200326095837. Online ahead of print.

33-Valipour B, Abedelahi A, Naderali E, Velaei K, Movassaghpour A, Talebi M, Montazersaheb S, Karimipour M, Darabi M, Chavoshi H, Nozad Charoudeh H.Cord blood stem cell derived $CD16^+$ NK cells eradicated acute lymphoblastic leukemia cells using with anti-CD47 antibody. ***Life Sci. 2020;*** Feb 1;242:117223. doi: 10.1016/j.lfs.2019.117223. Epub 2019 Dec 24.

34- Jabbari N, Karimipour M, Khaksar M, Akbariazar E, Heidarzadeh M, Mojarad B, Aftab H, Rahbarghazi R, Rezaie J.Tumor-derived extracellular vesicles: insights into bystander effects of exosomes after irradiation. ***Lasers Med Sci. 2020;*** Apr;35(3):531-545. doi: 10.1007/s10103-019-02880-8. Epub 2019 Sep 16.

35- Sadeghi A, Asghari H, Hami J, Mohasel Roodi M, Mostafaee H, Karimipour M, Namavar M, Idoon F.Volumetric investigation of the hippocampus in rat offspring due to diabetes in pregnancy-A stereological study. ***J Chem Neuroanat. 2019;*** Nov; 101:101669. doi: 10.1016/j.jchemneu.2019.101669. Epub 2019 Aug 20.

36- NA Aval, R Emadi, A Valiani, M Kharaziha, M Karimipour, R Rahbarghazi. Nano-featured poly (lactide-coco-glycolide)-graphene microribbons as a promising substrate for nerve tissue engineering. ***Composites Part B: Engineering, 2019; (173),*** 106863.

37- Karimipour M, Rahbarghazi R, Tayefi H, Shimia M, Ghanadian M, Mahmoudi J, Bagheri HS.Quercetin promotes learning and memory performance concomitantly with neural stem/progenitor cell proliferation and neurogenesis in the adult rat dentate gyrus. ***Int J Dev Neurosci. 2019;*** May; 74:18-26. doi: 0.1016/j.ijdevneu.2019.02.005. Epub 2019 Feb 26.

38- Nasrolahi A, Mahmoudi J, Karimipour M, Akbarzadeh A, Sadigh-Eteghad S, Salehi R, Farajdokht F, Farhoudi. Effect of cerebral dopamine neurotrophic factor on endogenous neural progenitor cell migration in a rat model of Parkinson's disease.M. ***EXCLI J. 2019;*** Mar 5;18:139-153. eCollection 2019.

39- Valipour B, Velaei K, Abedelahi A, Karimipour M, Darabi M, Charoudeh HN.NK cells: An attractive candidate for cancer therapy. ***J Cell Physiol. 2019;*** Nov;234(11):19352-19365. doi: 10.1002/jcp.28657. Epub 2019 Apr 16.

40- Nasrolahi A, Mahmoudi J, Akbarzadeh A, Karimipour M, Sadigh-Eteghad S, Salehi R, Farhoudi M. Neurotrophic factors hold promise for the future of Parkinson's disease treatment: is there a light at the end of the tunnel? ***Rev Neurosci. 2018;*** Jul 26;29(5):475-489. doi: 10.1515/revneuro-2017-0040.

41- Rezaie J, Ajezi S, Avci ÇB, Karimipour M, Geranmayeh MH, Nourazarian A, Sokullu E, Rezabakhsh A, Rahbarghazi R.Exosomes and their Application in Biomedical Field: Difficulties and Advantages. ***Mol Neurobiol. 2018;*** Apr;55(4):3372-3393. doi: 10.1007/s12035-017-0582-7. Epub 2017 May 11.

42- M Karimipour, H Tayefi, M Shimia, J Mahmoudi. Integration of the Neural Stem and Progenitor Cells into Existing Neuronal Circuitry and Adult Neurogenesis in the Dentate Gyrus of the Hippocampus. ***Journal of Experimental and Clinical Neurosciences. 2017***;4 (1),1-6.

43–Esfandiari Ebrahim, Karimipour Mohammad, Mardani Mohammad, Alaei Hojjatallah, Ghannadian Mustafa, Mohammadnejad Daryoush, Kazemi Mohammad, Hosseini Nasrin, Esmaeili Abolghasem: Novel effects of Rosa damascena extract on memory and neurogenesis in a rat model of Alzheimer’s disease. ***Journal of Neuroscience Research. 2014***; 92(4):517-30.

44- M Karimipour, E Esfandyari, M Mardani, S Babri, H Allaei, A Esmaeilli. Manipulation endogenous neurotrophic factors: A promising therapy in Alzheimer's disease (hypothetic study). ***Alzheimer's & Dementia: The Journal of the Alzheimer's Association. 2011***;4(7); e59-e60.

45- D.M.Nejad, J.S.Rad, L.Roshangar, M. Karimipor, A.Aazami and M.R. Valilou, A study on the effect of thiotepa on mice spermagenesis using Light and Electronic Microscope. ***Pakistan Journal of Biological Sciences. 2008***; 11 (15): 1929-1934.

46- Noorafshan A, Karimipoor M, Bahmanpoor S, Dehghani F. The Influence of Exposure to Stress of Pregnant Rats on the Adrenal Gland Structure of their Offspring. An Unbiased Stereological Study. ***Scand. J. Lab. Anim. Sci. No. 2005***; 3(32).

B) Published Articles in Iranian journals:

1- Maryam Lale Ataei, Mohammad Karimipour, Parviz Shahabi , Hamid Soltani-Zangbar , Marym Pashaiasl, Human Mesenchymal Stem Cell Transplantation Improved Functional Outcomes Following Spinal Cord Injury Concomitantly with Neuroblast Regeneration. ***Advanced Pharmaceutical Bulletin.2022, October,***doi; 10.34172/apb.2023.058

2- Rahbarghazi R, Karimipour M. Stimulation and recruitment of hippocampal neural stem cells as a novel and efficient therapeutic strategy in the treatment of Alzheimer's disease: A review study. ***Stud Med Sci. 2020***; 31 (10) :764-791.

3- Sigaroodi F, Shafaei H, Karimipour M, Dolatkhah MA, Delazar A. Aloe Vera/Collagen Mixture Induces Integrin α1β1 and PECAM-1 Genes Expression in Human Adipose-Derived Stem Cells. ***Adv Pharm Bull. 2019;*** Oct;9(4):662-667. doi: 10.15171/apb.2019.077. Epub 2019 Oct 24.

4- Esfandiary E, Abdolali Z, Omranifard V, Ghanadian M, Bagherian-Sararoud R, Karimipour M, Mahaki B, Dabiri S. Novel Effects of Rosa damascena Extract on Patients with Neurocognitive Disorder and Depression: A Clinical Trial Study. ***Int J Prev Med. 2018;***Jun 29; 9:57. doi: 10.4103/ijpvm.IJPVM_199_17. eCollection 2018.

5- Eyvazi M, Farahzadi R, Karimian Fathi N, Karimipour M, Soleimani Rad J, Montaseri A. Mummy Material Can Promote Differentiation of Adipose Derived Stem Cells into Osteoblast through Enhancement of Bone Specific Transcription Factors Expression. ***Adv Pharm Bull. 2018;*** Aug;8(3):457-464. doi: 10.15171/apb.2018.053. Epub 2018 Aug 29.

6- Esfandiari Ebrahim, Karimipour Mohammad, Mardani Mohammad, Alaei Hojjatallah, Ghannadian Mustafa, Mohammad nejad Daryoush, Esmaeili Abolghasem: Neuroprotective effects of the Rosa damascena extract on learningand memory in a rat model of amyloid-β induced Alzheimer's disease. ***Adv Biomed Res. 2015;***27; 4:131.

C) Published Articles In Congresses:

1- Transplantation of bioengineered Reelin-loaded PLGA/PEG micelles can accelerate neural tissue regeneration in the photothrombotic stroke model of the mouse. 13Th Basic & Clinical Neuroscience Congress. Tehran, Iran, December 27-29, 2024.

2- Human mesenchymal stem cells promote functional improvement in a rat model of Alzheimer's disease. 6Th Basic & Clinical Neuroscience Congress. Tehran, Iran, December 20-22, 2017.

3- The Role of Graphene Oxide Coating on Polymeric Wet Spun Microribbons in Neural Tissue Regeneration. The Second National Festival and International Congress on Stem Cell and Regenerative Medicine. Tehran, Iran, 13-15 July 2017.

4- Approaches for making the scaffolds containing microribbons in neural tissue engineering. 3rd Iranian Congress on Progress in Tissue Engineering and Regenerative Medicine. Tehran, Iran, October 19-21, 2016.

5- Alzheimer's treatment using Regenerative Medicine: How Do Neural Stem Cells and New-Generating Neurons Affect Learning and Memory in Alzheimer's Disease? The First National Festival& International Congress of Stem Cell and Regenerative Medicine. 19-21 May, 2016.

6-The novel effects of Rosa Damascena extract on memory and neurogenesis in a rat model of Alzheimer's disease:7th Asia Pacific International Congress of Anatomists(APICA). Singapore,March 17-20, 2016.

7- From Neural Stem Cells to Integration of New Generating Neurons in Existing Hippocampal Circuitry: A New Promising Approach for Management and Treatment of Alzheimer's Disease 4Th Basic & Clinical Neuroscience Congress. Tehran, Iran, December 23-25, 2015.

8-Neural Stem Cell Discovery as a Revolutionary Phenomenon in CNS Regeneration . 4th Basic & Clinical Neuroscience Congress. Tehran, Iran, December 23-25, 2015.

9- Co-application of the Neural Stem Cells and Peptide Amphiphile Tenascin-C Nanobiomaterial for Neural Tissue Regeneration in Stroke Disease.2nd Iranian Congress on Progress in Tissue Engineering and Regenerative Medicine. Tehran, Iran, November7-9, 2015.

10-From Neural Stem Cells to Neural Tissue Regeneration: Co-application of Neural Stem Cells and Nanobiomaterials in a Mouse Model of Photochemical Stroke, 3rd Basic and Clinical Neuroscience Congress. Tehran, Iran, October 29-31, 2014.

11-Quercetin as a natural Bioflavonoid stimulates proliferation and differentiation of neural stem cells and promotes clinical recovery in a rat model of Alzheimer's disease, 3rd Basic and Clinical Neuroscience Congress. Tehran, Iran, October 29-31, 2014.

12- Manipulation of the Endogenous Neurotrophic Factors: A Promising Therapy in Alzheimer's Disease (Hypothetic Study): Alzheimer's Association International Conference. Paris, France. July 16-21, 2011.

13- Therapeutic Potential of Neurotrophic Factors in Neurodegenerative Diseases: 3rd International Congress on Stem Cells and Tissue Formation. Dresden, Germany, July 11-14, 2010.

6) Approved Thesis Committee:

A) Thesis Supervisor:

1- Ph.D. thesis in Anatomical Sciences, entitled ((The application of exosome-derived neurotrophic factor–secreting cells on manipulation of the basal forebrain cholinergic neurons and synaptic plasticity in the Alzheimer's disease model)), 2025-2027.

2- GP thesis in medical doctor, entitled ((Examining the impact of myricetin on cell damage and oxidative stress caused by Aβ peptide in SH-SY5Y cells)) ,2025.

3- Ph.D. thesis in Biochemistry, entitled ((The evaluation of the effect of astrocyte-derived exosomes on neurogenesis and cognitive behavior in the Alzheimer's disease model)), 2023-2025.

4- Ph.D. thesis in Applied Cell Sciences, entitled ((The evaluation of the effect of melatonin-pretreated astrocyte-derived exosomes on neurogenesis and neural tissue regeneration in the medial prefrontal cortex stroke)), 2023-2025.

5- Ph.D. thesis in Anatomical Sciences, entitled ((The investigation of the effect of neural stem cells and reelin glycoprotein on neurogenesis and neural tissue regeneration in the animal model of internal capsule photothrombotic stroke)), 2022-2024.

6- Ph.D. thesis in Anatomical Sciences, entitled ((The effect of exosomes derived astrocytes and reelin glycoprotein on neurogenesis and neural tissue regeneration in the animal model of hippocampal photothrombotic stroke)), 2022-2024.

7- Ph.D. thesis in Applied Cell Sciences, entitled ((Evaluation of the effectivness of concomitant use of neural stem cells (NSCs) and hyalorounic acid hydrogel (HA) containing Ciliary Neurotrophic Factor (CNTF)on the recovery of brain cortex in mice model of cerebral stroke)), 2022-2024.

8- PhD thesis in Neuroscience, entitled ((Comparison of the effect of dexamethasone with Platelet-Rich Plasma (PRP) derived exosomes on molecular, histological, and motor skills alterations in an animal model of spinal cord injury)), 2021- 2023.

9- GP thesis in medical doctor, entitled ((The stereological investigation of the effect of neurotrophic factor- secreting cells on volume changes in different parts of the hippocampus in a model of Alzheimer's disease)), 2021- 2022.

10- GP thesis in medical doctor, entitled ((The evaluation of the effect of neural stem cells condition media on the volume alterations and atrophy of the hippocampal subdivisions in the Model of Alzheimer's disease)), 2021- 2022.

11- GP thesis in medical doctor, entitled ((The evaluation of the effect of cerebrolysin on the spinal cord neural stem cells behavior, reconstruction and functional recovery in the rat model of spinal cord injury)), 2021- 2022.

12- M.Sc. thesis in Anatomical Sciences, entitled ((The evaluation of the effect of neural stem cells supernatant on Wnt-β catenin signaling pathway and neurocognitive behaviors in the model of Alzheimer's disease)), 2020- 2021.

13- PhD thesis in Neuroscience, entitled ((The investigation of the effect of neural stem cells and PLGA-PEG hydrogel loaded with Reelin glycoprotein to the reconstruction of the nervous system in a mouse stroke model)), 2019- 2021.

14- PhD thesis in Anatomical Sciences, entitled ((The Evaluation of the Effect of Neurotrophic Factor–Secreting Cells (Astrocyte-Like Cells) on Neurogenesis in Hippocampus and Cognitive Behavior in Alzheimer 's Disease Animal Model, 2019-2021.

15- M.Sc. thesis in Anatomical Sciences, entitled ((The effect of neurotrophic factors-secreting cells on synaptogenesis and Tau protein phosphorylation in an in vitro model of Alzheimer's disease)), 2019- 2020.

16- M.Sc. thesis in Anatomical Sciences, entitled ((The comparison of the effect of (PLGA) and (PLGA-PEG) Poly (Lactide-Co-Glycolide)/Polyethylene Glycol biomaterials on proliferation and neural differentiation of human neural SH-SY5Y cells**)**), 2018- 2019.

17- M.Sc. thesis in Anatomical Sciences, entitled ((The comparison of the effect of (PLGA) and (PLGA-PEG) Poly (Lactide-Co-Glycolide)/Polyethylene Glycol biomaterials on synaptogenesis and neural arborization of human neural SH-SY5Y cells**)**), 2018-2019.

18- M.Sc. thesis in Anatomical Sciences, entitled ((The evaluation of the effect of PCLF (poly-caprolactone fumarate) three-dimensional scaffold on the proliferation and differentiation of neural stem cells derived from the sub-ventricular zone in the adult mice)), 2016- 2017.

B) Thesis advisor:

1- MS.C thesis in anatomical Sciences, entitled ((Investigating the effect of flavonoid Myricetin on inflammatory and cognitive behaviors in an animal model of Alzheimer's disease)), 2025-2026.

2- GP thesis in medical doctor, entitled ((Effect of adipose stem cell exosomes on microvascular brain tissue of rats stimulated with interleukin 1 beta)), 2023-2024.

3- PhD thesis in physiology, entitled ((Effect of AdipoRon on the rate of neurogenesis in nigrostriatal pathway in adult male rats' model of Parkinson's disease)), 2023-2024.

4- PhD thesis in Neuroscience, entitled ((Investigation of the effect of cannabinoids on the viability and proliferation of neural stem cells and expression of inflammatory factors of TLR/NF-kB signaling pathway following injury in -vitro)), 2021- 2023.

5- PhD thesis in Anatomical Sciences, entitled ((Comparison of the effect of the supernatant derived-amniotic fluid stem cells on differentiation and reprogramming of the astrocyte derived-amniotic fluid stem cells and astrocyte cell line into neuroblasts in spinal cord injury in in-vivo)), 2019- 2021.

6-Ph.D thesis in Biomaterial, Entitled ((Fabrication and characterization of a hybrid scaffold for controlling the neural stem cell function)), 2017-2019.

7- Ph.D thesis in Molecular medicine, Entitled ((Study of CDNF-Loaded PLLA Nanobiomaterial Effect on Endogenous Neural Stem Cell Migration and Functional Recovery in a Rat Model of Parkinson′s disease)), 2016-2018.

8- Ph.D thesis in Pharmaceutics, Entitled ((Synthesis and characterization of biocompatible poly aniline derivates as electro conductive scaffolds and study of their influence on stem cell behavior)), 2016-2018.

7) Research projects:

N	Title	Director/ colleague	Date	Institution
1	Evaluation of neural stem cell migration induced by melatonin-treated astrocytes' extracellular vesicles to the dorsolateral prefrontal cortex in the ischemic stroke model	Director	2025-2026	1- Department of Anatomical Sciences 2-Neuroscience Research Center, Tabriz University of Medical Sciences

2	The evaluation of co-application of neural stem cells and a hybrid scaffold consisting of hyaluronic acid and self-assembling nanofiber peptide (RADA 16) for the regeneration and repair of the neurovascular system in stroke disease	Director	2024-2025	2- Department of Anatomical Sciences 2-Neuroscience Research Center, Tabriz University of Medical Sciences
3	Study the effect of mitochondrial therapy on the cognitive performance in the mPFC region in the photothrombotic stroke model in small animals.	Colleague	2023-2024	Neuroscience Research Center, Tabriz University of Medical Sciences
4	Study the effect of mesenchymal stem cells extracted from aerobically trained rats on neuronal repair and cognitive functioning skills in cerebral ischemic male rats	Colleague	2022-2023	Department of Neuroscience, Tabriz University of Medical Sciences
5	Study the effect of cerebrolysin on neural stem cell proliferation and TNF- in the rat model of spinal cord injury.	Director	2020-2021	1- Department of Anatomical Sciences, 2- Stem Cell Research Center, Tabriz University of Medical Sciences
6	The comparison of the effect of PCLF (poly- caprolactone fumarate) three- dimensional scaffold on the behavior of adult neural stem cells derived from the sub-ventricular zone and the dentate gyrus in the adult mice	Director	2019-2020	1- Department of Anatomical Sciences, Tabriz University of Medical Sciences 2- Stem Cell Research Center, Tabriz University of Medical Sciences
7	Evaluation of the neuroprotective effects of quercetin on learning and memory through adult neurogenesis and synaptic plasticity mechanisms in a rat model of Alzheimer`s disease	Director	2017-2018	Department of Anatomical Sciences, Tabriz University of Medical Sciences

8	Study the effect of the transplantation of adipose-derived mesenchymal stem cells on memory, neurogenesis, and synaptic plasticity mechanisms in a rat model of Alzheimer`s disease	Director	2015-2016	Department of Anatomical Sciences, Tabriz University of Medical Sciences
9	Study the behavior of neural stem cells in the context of stroke and neuroplasticity	Colleague	2012-2013	Center for Brain Repair, Institute for Neuroscience and Physiology, Gothenburg University, Sweden

8) Teaching and training:

Date	**Course Name**
2022-Up to now	Neuroanatomy, developed neuroanatomy, Immunohistochemistry, Morphometry and Stereology, Cell therapy in neurological disorders, Neuroregeneration, Neurohistology and Neuroembryology, Development, and Regeneration of the Organs, Neural Stem Cells, Scientific Writing, Human Brain Dissection, Neural stem cell biology.
2020-2021	Neuroanatomy, Immunohistochemistry, Morphometry and Stereology, Cell therapy in the neurological disorders, Neuroregeneration, Neurohistology and Neuroembryology, Development and Regeneration of the Organs, Neural Stem Cells, Clinical neuroanatomy, applied head and neck anatomy, Developed neuroanatomy, Scientific Writing, Human Brain Dissection,
2018-2019	Neuroanatomy, Cell therapy in the neurological disorders, Cell culture, Neuroregeneration, Neurohistology and Neuroembryology, Cellular and Molecular evaluations of the Cells and Tissues, Developed neuroanatomy, Research methods in neuroscience, Human Brain Dissection, Neural stem cell biology.
2016-2017	Neuroanatomy, Head and Neck anatomy, Neuroregeneration, Neurohistology and Neuroembryology. Applied head and neck anatomy, Research methods in neuroscience.
2014- 2015	Neuroanatomy, Head and Neck anatomy. General anatomy, Upper limb anatomy, Trunk anatomy (Thorax and abdomen).

9) Workshops attended:

Date	Course Name
2016	Research methodology, RDCC, Tabriz University of Medical Sciences, Tabriz, Iran
2016	Research Ethics, RDCC, Tabriz University of Medical Sciences, Tabriz, Iran
2016	Scientific Writing and Publication Skills, RDCC, Tabriz University of Medical Sciences, Tabriz, Iran
2014	Human brain dissection workshop, 3rd Basic and Clinical Neuroscience Congress. Tehran, Iran
2011	SDS-PAGE and Western Blotting, Biology Department of University of Isfahan, Isfahan, Iran
2011	First Annual Workshop on Neural Stem Cells, National Institute of Genetic Engineering and Biotechnology. Tehran-Iran
2010	Real-Time RT-PCR Workshop, Royan Institute, Tehran, Iran
2009	Flow Cytometry and Immunocytochemistry Workshop, Stem Cell Technology Research Center, Tehran, Iran
2007	The methods of processing of tissue and working with Transmission Electron Microscope, Applied Drug Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

10) Skills:

A) Language

English: Upper-Intermediate

Persian: Fluent

Azeri / Turkish: Mother language

Arabic: Beginner

B) Software

Image J, SPSS, Graph Pad Prism, Photoshop

C) laboratory

Neural stem cell culture, Flow cytometry, Immunocytochemistry, Immunohistochemistry, Immunofluorescence, Real-time RT.-PCR, Western blot, Elisa, MTT assay, Stereology, Small lab animal handling and surgical techniques, Perfusion fixation, Stereotaxic surgery, Tissue processing, and staining procedures, TEM, SEM, Induction of animal models (Stroke, AD, PD), Functional and behavioral tests.

11) Positions held: (past- current)

Start and End Date	Job Title
2022- 2025	Head of the Department of Anatomical Sciences
2021- 2023	Research Deputy of the Applied Cell Sciences Department
2021- 2023	Research Deputy of the Neuroscience Department
2021- 2023	Research Deputy of the Anatomical Sciences Department
2019-2021	Head of the Department of Applied Cell Sciences
2017-2020	Research Deputy of the Anatomical Sciences Department

12) Association Memberships (past and current)

Start and End Date	Job Title
2023-2025	Council member of the Neuroscience Research Center, Tabriz, Iran
2023-2025	Council member of the Stem Cell Research Center, Tabriz, Iran
2019- 2021	Council member of the Institute for Stem Cell Biology and Regenerative Medicine, Iran
2017- Up to now	Member of Iranian Neuroscience Society, Iran
2015- Up to now	Member of the Iranian Society of Anatomical Sciences, Iran

13) References:

1- H. Georg Kuhn, Ph.D., Professor for Regenerative Neuroscience, Center for Brain Repair and Rehabilitation, Institute for Neuroscience and Physiology, University of Gothenburg, Sweden. E-mail: georg.kuhn@neuro.gu.se

2- Ebrahim Esfandiari, Ph.D, Professor of Anatomical Sciences, Department of Anatomical Sciences, Faculty of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran. E-mail: esfandiari@med.mui.ac.ir

3- Soghra Bahmanpour, Ph.D, Professor of Anatomical Sciences, Department of Anatomical Sciences, Faculty of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran. E-mail: bahmanpour@yahoo.com

4- Reza Rahbarghazi, Ph.D, Professor of Clinical Pathology, Department of Applied Cell Sciences, Faculty of Advanced Medical Sciences, Tabriz University of Medical Sciences, Tabriz, Iran. rezarahbardvm@gmail.com