Personal Information

First name:	Fatemeh
Surname:	Tirgar
Title:	PhD
Scholar h-index	8
Scopus h-index	8
Nationality:	Iranian
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Education

- Ph.D. in Neuroscience, Grade Point Average: 18.84, Graduate Defense Point: 20, Tehran University of Medical Sciences, Tehran, Iran.

- M.Sc. (2010-2012) in Animal Physiology, Grade Point Average: 19.09, Graduate Defense Point: 19.5, University of Tehran, Tehran, Iran.

- B.Sc. (2006-2010) in Biology, Grade Point Average: 16.48, University of Tehran, Tehran, Iran.

<u>Thesis</u>

Ph.D.: In Vivo Gene Therapy in Glioblastoma Multiforme: Using Olfactory Ensheathing Cells Containing Thymidine Kinase Gene

M.Sc.: The Role of Central Amygdale Serotonergic and Cholinergic System in Morphine-MDMA-Nicotine Co-abuse in Passive Avoidance Learning.

ISI Publication

- Nateghi S, Rezayof A, Kouhkan F, Delphi L, Bagheri-Davisaraei Y, Rostami F, <u>Tirgar F</u>, Sepehri H. Growth of the prefrontal cortical glioblastoma altered cognitive and emotional behaviors via mediating microRNAs and GABA-A receptor signaling pathways in rats. Brain Research Bulletin. 2025; 221:111227. (IF: 3.5)
- 2- <u>Tirgar F</u>, Azizi Z, Hadjighassem M. A Novel Approach for Mucosal and Bulbar Olfactory Ensheathing Cell Isolation Based on the Non-Adherent Subculture Technique. Basic and Clinical Neuroscience, 2024; 15(2): 211-220. (IF: 1.7).
- 3- Ebrahimpour A, Khoobi M, Riyahi Alam N, Masoumbeigi M, <u>Tirgar F</u>, Ebrahimi T. Reliable Differentiation of Necrosis and Active Metabolically Contours of Glioblastoma Multiforme using Susceptibility-based Imaging. Helyion, 2024; 10 (7): E28355 (IF: 4).

- 4- Ghazvini H, <u>Tirgar F</u>, Khodamoradi M, Seyedhosseini Tamijani SM, Niknamfar S, Akbari E, Nekahi M, Tarjani N, Ghalehnoei H, Rouhi Ardeshiri M. Investigating Facilitatory Effects of Lithium on Methamphetamine-induced Spatial Memory Impairments in Rat. Basic and Clinical Neuroscience, 2023; 14(5): 605-614 (IF: 1.7).
- 5- Kamali M, Webster T.J, Amani A, Hadjighassem MR, Malekpour MR, <u>Tirgar F</u>, Khosravani M, Adabi M. Effect of folate-targeted Erlotinib loaded human serum albumin nanoparticles on tumor size and survival rate in a rat model of glioblastoma. Life Sciences, 2023; 313: 121248 (IF: 6.78).
- 6- <u>Tirgar F</u>, Azizi Z, Hosseindoost S, Hadjighassem M. Preclinical gene therapy in glioblastoma multiforme: Using olfactory ensheathing cells containing a suicide gene. Life Sciences, 2022; 311(Pt A):121132 (IF: 6.1).
- 7- Khodamoradi M, <u>Tirgar F</u>, Ghazvini H, Rafaiee R, Seyedhosseini Tamijani SM, Karimi N, Yadegari A, Siahposht Khachaki A, Akhtari J. Role of the cannabinoid CB1 receptor in methamphetamine-induced social and recognition memory impairment. Neuroscience letters, 2022; 779:136634 (IF: 3.066).
- 8- Ebrahimpour A, <u>Tirgar F</u>, Hajipour-Verdom B, Abbasi A, Hadjighassem M, Abdolmaleki P, Hosseindoost S, Javadi SAH, Hashemi H, Rahimi Foroushani A, Riyahi Alam N, Khoobi M. Detection of glioblastoma multiforme using quantitative molecular magnetic resonance imaging based on 5-aminolevulinic acid: in vitro and in vivo studies. Magnetic Resonance Materials in Physics, Biology and Medicine, 2022; 35(1):3-15 (IF: 2.408).
- 9- Ebrahimpour A, Riahi Alam N, Abdolmaleki P, Hajipour-Verdom B, <u>Tirgar F</u>, <u>Ebrahimi</u> T, <u>Khoobi</u> M. Magnetic Metal–Organic Framework Based on Zinc and 5-Aminolevulinic Acid: MR Imaging and Brain Tumor Therapy. Journal of Inorganic and Organometallic Polymers and Materials, 2021; 31 (3): 1208-1216 (IF: 3.112).
- 10- Ghazvini H, <u>Tirgar F</u>, Khodamoradi M, Akbarnejad Z, Rafaiee R, Seyedhosseini Tamijani SM, Asadi-Shekaari M, Esmaeilpour Kh, Sheibani V. Ovarian hormones prevent methamphetamine-induced anxiety-related behaviors and neuronal damage in ovariectomized rats. Neuroscience letters, 2021; 746, 135652 (IF: 3.066).

- 11- <u>Tirgar F</u>, Rezayof A, Alijanpour S, Yazdanbakhsh N. Interactive effects of morphine and nicotine on memory function depend on the central amygdala cannabinoid CB1 receptor function in rats. Progress in Neuro-Psychopharmacology and Biological Psychiatry, 2018; 82: 62-68 (IF: 4.43).
- 12- Amiri S, Alijanpour S, <u>Tirgar F</u>, Haj-Mirzaian A, Amini-Khoei H, Rahimi-Balaei M, Rastegar M, Ghaderi M, Ghazi-Khansari M, Zarrindast MR. NMDA receptors are involved in the antidepressant-like effects of capsaicin following amphetamine withdrawal in male mice. Neuroscience, 2016; 329:122-133 (IF: 3.701).
- Alijanpour S, <u>Tirgar F</u>, Zarrindast MR. Role of dorsal hippocampal orexin-1 receptors in memory restoration induced by morphine sensitization phenomenon. Neuroscience, 2016; 312: 215-26 (IF: 3.701).
- 14- <u>Tirgar F</u>, Rezayof A, Zarrindast MR. Central amygdala nicotinic and 5-HT1A receptors mediate the reversal effect of nicotine and MDMA on morphine-induced amnesia. Neuroscience, 2014; 277: 392-402 (IF: 3.64).

Conferences and Schools

- <u>Tirgar F.</u> International Conference on Quantum Technologies & Industrial Applications. 28-29 May 2024, Tehran, Iran (Attendance in conference).
- 2- <u>Tirgar F.</u> The 10th International Conference on Cognitive Sciences. 15-17 May 2024, Tehran, Iran (Attendance in conference).
- 3- <u>Tirgar F</u>, Azizi Z, Hadjighassem MR. Isolation of Mucosal and Bulbar Olfactory Ensheathing Cells Based on a Novel Approach. 5th International and 26th Iranian Congress of Physiology and Pharmacology. 11-13 October 2023, Semnan, Iran (Attendance in congress and **Poster presentation**).
- 4- <u>Tirgar F.</u> Common symposium on cognitive sciences. Institute for Cognitive Science Studies (ICSS). 16 December 2022, Tehran, Iran (Attendance in symposium).

- 5- Karimi-Zandi L, <u>Tirgar F</u>, Rashidi R, Mohammadi Sh. The Hydroalcoholic extract Allium Saralicum r.m. fritsch improves cognitive impairment induced by social isolation. 22nd national and 10th international congress on biology. 31 August- 2 September 2022, Shahrekord, Iran (Attendance in congress and **Poster presentation**).
- 6- <u>Tirgar F</u>, Karimi-Zandi L, Mohammadi Sh, Jalilian M, Rashidi R. In vivo therapeutic effects of novel Allium Saralicum r. m. Fritsch extract on glioblastoma multiforme. Women in Neuroscience Symposium. 12-14 August 2022, Tbilisi, Georgia (Attendance in the symposium and Oral presentation).
- 7- Rashidi R, Mohammadi Sh, Karimi-Zandi L, <u>Tirgar F</u>. The antidepressant and memory enhancement effects of plant extracts Allium Saralicum r. m. Fritsch in isolated stress model. Women in Neuroscience Symposium. 12-14 August 2022, Tbilisi, Georgia (Attendance in symposium and **Poster presentation**).
- 8- <u>Tirgar F</u>, Azizi Z, Hadjighassem M. In vivo therapeutic suicide gene delivery using a novel carrier in brain tumor model. 1st Science and Advanced Technologies in Medicine Festival. 17 May 2022, Tehran, Iran (Attendance in festival and Poster and Patent presentation).
- 9- <u>Tirgar F</u>, Azizi Z, Hadjighassem MR. Tumoricidal properties of olfactory ensheathing cells containing HSV-tk gene on brain tumor: Molecular and imaging analysis. 10th International Basic and Clinical Neurosciences Congress. 22-24 December 2021, Tehran, Iran (Attendance in congress and **Oral presentation**).
- 10- <u>Tirgar F</u>, Azizi Z, Hadjighassem MR. In vivo therapeutic suicide gene delivery using a novel carrier in brain tumor model. EACR-AstraZeneca Conference "Drug Tolerant Persister Cells". 7-8 December 2021, Nottingham, UK (Attendance in congress and Poster presentation).
- 11- <u>Tirgar F</u>, Azizi Z, Hadjighassem MR. Invivo gene therapy in glioblastoma multiform: Using olfactory ensheathing cells containing thymidine kinase gene. The 50th Annual Meeting of the Society for Neuroscience (SfN). 8-11 November 2021, Chicago, USA (Attendance in congress and Poster presentation).

- 12- Nateghi S, Rezayof A, Delphi L, <u>Tirgar F</u>, Kouhkan F. The growth of the prefrontal cortical glioblastoma induced anxiolytic-like behaviors in rats. 4th International and 25th Iranian Congress of Physiology and Pharmacology. 20-22 October 2021, Tehran, Iran (Attendance in congress and Poster presentation).
- 13-Bagheri Darvisaraei Y, Rezayof A, Delphi L, <u>Tirgar F</u>, Kouhkan F. The growth of glioblastoma in the rat striatum produced movement disorders. 4th International and 25th Iranian Congress of Physiology and Pharmacology. 20-22 October 2021, Tehran, Iran (Attendance in congress and Poster presentation).
- 14-<u>Tirgar F.</u> Methamphetamine School. Tehran University of Medical Sciences. 15-17 September 2021, Tehran, Iran (Attendance in School).
- 15- <u>Tirgar F</u>, Azizi Z, Hadjighassem MR. Olfactory Ensheathing Cells as a novel carrier for therapeutic thymidine kinase gene delivery in glioblastoma multiform model. Response and Resistance in Cancer Therapy in British Association for Cancer Research (BACR). 6-8 September 2021, Leeds, UK (Attendance in congress and **Poster presentation**).
- 16- <u>Tirgar F.</u> The 8th International Basic and Clinical Neurosciences Congress. 18-20 December 2019, Tehran, Iran (Attendance in congress).
- 17- <u>Tirgar F.</u> The 6th International Basic and Clinical Neurosciences Congress. 20-22 December 2017, Tehran, Iran (Attendance in congress).
- 18-<u>Tirgar F.</u> The 5th International Basic and Clinical Neurosciences Congress. 7-9 December 2016, Tehran, Iran (Attendance in congress).
- 19-<u>Tirgar F</u>. The 5th Symposium of World Federation of Neurosurgical Societies & the 7th International Neurosurgery Congress & the 1st International Neuroscience Confederation Congress MASSIN Interim Meeting. 17-22 April 2016, Tehran, Iran (Attendance in congress).
- 20-<u>Tirgar F.</u> The 4th International Basic and Clinical Neurosciences Congress. 23-25 December 2015, Tehran, Iran (Attendance in congress).

- 21- <u>Tirgar F</u>, Amiri Sh, Alijanpour S, Zarrindast MR. Antidepressant-like effects of TRPV1 agonist, capsaicin, in an animal model of psycho-stimulant withdrawal. The 1st International and 22nd Iranian Congress of Physiology and Pharmacology. 7-11 September 2015, Kashan, Iran (Attendance in congress and Poster presentation).
- 22-Alijanpour S, <u>Tirgar F</u>, Zarrindast MR. Blockade of CA1 orexin-1 receptors in the expression phase inhibits memory restoration induced by morphine sensitization. The 1st International and 22nd Iranian Congress of Physiology and Pharmacology. 7-11 September 2015, Kashan, Iran (Attendance in congress and **Poster presentation**).
- 23-<u>Tirgar F.</u> The 2nd International Basic and Clinical Neurosciences Congress. 18-20 December 2013, Tehran, Iran (Attendance in congress).
- 24- <u>Tirgar F</u>, Rezayof A. Nicotine reversed morphine-induced amnesia via cannabinoid CB1 receptors of the central amygdala in rats. 21st International Congress of Physiology and Pharmacology. 23-27 August 2013, Tabriz, Iran (Attendance in congress and Poster presentation).
- 25-<u>Tirgar F</u>, Rezayof A. The blockade of central amygdala serotonin 5-HT1A receptors reverse MDMA-induced potentiation of morphine-nicotine state-dependent learning. The International Basic and Clinical Neurosciences Congress. 7-9 November 2012, Tehran, Iran (Attendance in congress and **Oral presentation**).
- 26-<u>Tirgar F</u>, Rezayof A. Role of central amygdala nicotinic receptors in the interaction of morphine, MDMA and nicotine in avoidance learning. The 17th National & 5th International Conference of Biology. 4-6 September 2012, Kerman, Iran (Attendance in Congress and **Oral presentation**).
- 27-<u>Tirgar F</u>, Rezayof A. Effect of microinjection of MDMA into the central amygdala on cross state-dependent learning between morphine and nicotine in rats. The 8th FENS Forum of Neuroscience. 14-18 July 2012, Barcelona, Spain (Attendance in congress and **Poster presentation**).

Patent

• IR Patent: Conditioned Multisensory Preference (CMP) Apparatus

Patent number: 103632

Honors and Awards

- 2nd place in Ahwazi Brain & Cognition Award for young investigators under 35 years old, 10th International Basic and Clinical Neuroscience Congress. 2021, Tehran, Iran.
- 1st place in scientific competition at Society for Neuroscience (SfN) congress. 2021, Chicago, USA.
- The European Association in Cancer Research (EACR) sponsored the Best Poster Presentation Prize at Response and Resistance in Cancer Therapy Congress. 2021, Leeds, United Kingdom.
- The 1st rank in Ph.D. Core Qualifying Exam among the 6 entries in 2015. Tehran University of Medical Sciences, Tehran, Iran (Grade point: 19.50).
- The 1st rank in Ph.D. based on Grade Point Average among the 6 entries in 2015. Tehran University of Medical Sciences, Tehran, Iran (Grade Point Average: 18.84).
- 6. The 1st rank in Ph.D. National Entrance Exam. 2015, Tehran, Iran.
- 7. The **Best Oral Presentation Prize** in the International Basic and Clinical Neurosciences Congress. 2012, Tehran, Iran.
- The 1st rank in M.Sc. based on Grade Point Average among the 5 entries in 2010. University of Tehran, Tehran, Iran (Grade Point Average: 19.09).

 The 3rd rank in B.Sc. based on Grade Point Average among all entries in 2006. University of Tehran (Grade Point Average: 16.48, Admitted to M.Sc. at University of Tehran based on Exceptional Talent Admittance, 2010).

Academic Teaching Experience

- Invited Lecturer at Shahid Beheshti University, Teaching "Anatomy and Physiology" for M.Sc. Students of Nuclear Medicine, Tehran, 2013- Present.
- Invited Lecturer at Shahid Beheshti University, Teaching "Anatomy and Physiology" for B.Sc. Students of Biomedical Engineering, Tehran, 2021 and 2023-present.

Academic Workshop, Course, School, Seminar and Webinar Instructor

- Lecturer at "Methadone Maintenance Treatment" Courses (8 Courses), Iranian National Center for Addiction Studies (INCAS), Tehran University of Medical Sciences, 2024-2025, Tehran, Iran.
- Instructor at "Neuromodulation: The Future Perspective" webinar, Iranian National Center for Addiction Studies (INCAS), Tehran University of Medical Sciences, 10 October 2024, Tehran, Iran
- Instructor and lecturer at "The 2nd Iranian Associate School of Cognitive Neuroscience for Addiction Prevention and Treatment Development: From Animal Study to Human Brain Mapping (IBRO School)". 7-14 May 2024, Tehran, Iran.
- Instructor at "Western Blotting" workshop, Tehran University of Medical Sciences, 6-8 January 2024, Tehran, Iran.
- Instructor at "Brain Awareness Week" event, Tehran University of Medical Sciences, March-April 2023, Tehran, Iran.

- Lecturer at "Carrier opportunities in neuroscience" symposium, Shiraz University of Medical Sciences, 23 February 2023, Shiraz, Iran.
- Instructor at "Neuroscience Job Positions" webinar, Tehran University of Medical Sciences, 30 November 2022, Tehran, Iran.
- Instructor and Lecturer at "Brain Awareness Week" event, Tehran University of Medical Sciences, 12-16 March 2022, Tehran, Iran.
- 9. Instructor at "How to Design a Deserve Poster" workshop, Tehran University of Medical Sciences, 9 February 2022, Tehran, Iran.
- Instructor at "Animals Surgery" workshop, Tehran University of Medical Sciences, 3 August 2021, Tehran, Iran.
- 11. Invited Lecturer at "Advanced Technologies in Neuroscience" webinar, Mazandaran University of Medical Sciences, 5 September 2020, Mazandaran, Iran.
- Outstanding Lecturer at Interdisciplinary Schools, Teaching "Neuroanatomy, Neurobiology, Neurogenetic, Neurophysiology and Neuropharmacology" at Sharif University of Technology, 2019-Present.
- 13. Instructor at "Behavioral Models of Laboratory Animals" workshop, Mazandaran University of Medical Sciences, 15 January 2018, Mazandaran, Iran.
- 14. Lecturer at "From Genome to Phenome" Seminars (3 lectures), Rozbeh Hospital, Tehran University of Medical Sciences, 2016, Tehran, Iran.

Scientific Committee Member

 Awards Scientific Vice Chair in 13th International Basic and Clinical Neuroscience Congress. 11-13 December 2024, Tehran, Iran. <u>https://bcncongress.ir/Default.aspx?PN=124</u>

- Scientific Committee Member in 13th International Basic and Clinical Neuroscience Congress. 11-13 December 2024, Tehran, Iran (Total number = 50).
- Awards Scientific Vice Chair in 12th International Basic and Clinical Neuroscience Congress. 27-29 December 2023, Tehran, Iran.
- Awards Scientific Vice Chair in 11th International Basic and Clinical Neuroscience Congress. 13-14 February 2023, Tehran, Iran.
- Awards Scientific Committee Member in 11th International Basic and Clinical Neuroscience Congress. 13-14 February 2023, Tehran, Iran (Total number=200).
- Reviewer in Basic and Clinical Neuroscience Journal, 2-year Impact Factor: 1.7, (Total number= 6 manuscripts and 60 hours).
- Scientific Committee Member in 10th International Basic and Clinical Neuroscience Congress. 22-24 December 2021, Tehran, Iran.
- Scientific Expert for 1 year in "The Virtual Education Academy of Exceptional Talents Development Center (MORAD)", 2021.
- Referee Committee Member in 8th International Basic and Clinical Neuroscience Congress. 18-20 December 2019, Tehran, Iran (Total number=15).
- Student Committee Member in 7th International Basic and Clinical Neuroscience Congress. 12-14 December 2018, Tehran, Iran.
- Panel Board Member at 6th International Basic and Clinical Neuroscience Congress. 20-22 December 2017, Tehran, Iran.
- 12. Referee Committee Member in 5th International Basic and Clinical Neuroscience Congress. 7-9 December 2016, Tehran, Iran (Total number=35).

Executive Committee Member

- Executive Committee Member (Lab assistant) in the 2nd Iranian Associate School of Cognitive Neuroscience for Addiction Prevention and Treatment Development: From Animal Study to Human Brain Mapping (IBRO School). 7-14 May 2024, Tehran, Iran.
- Organizing Committee Member at "Brain Awareness Week" event. Tehran University of Medical Sciences, March-April 2023, Tehran, Iran.
- Head Executive Member in 1st Science and Advanced Technologies in Medicine Festival.
 17 May 2022, Tehran, Iran.
- Secretory of Photo and Short Film Festival in Neuroscience in 5th International Basic and Clinical Neuroscience Congress. 7-9 December 2016, Tehran, Iran.
- 5. Executive Committee Member in 5th International Basic and Clinical Neuroscience Congress. 7-9 December 2016, Tehran, Iran.
- 6. Executive Organizing Member in 1st Iranian IBRO/APRC School of Cognitive Neuroscience on Human Brain Mapping. 23 September- 4 October 2016, Tehran, Iran.
- Executive Committee member at 2nd Ahwazi Brain & Cognition Award in 4th International Basic and Clinical Neuroscience Congress. 23-25 December 2015, Tehran, Iran.

Research Project

 Executor in "Evaluation of behavioral and molecular alteration caused by crocin and caffeine in rat model of attention-deficit/ hyperactivity disorder (ADHD)". Approved in the Iranian National Center for Addiction Studies (INCAS), Tehran University of Medical Sciences (TUMS), 5 November 2024. Research Number: 73051-113-3-1403/ Tracking Code: 73051

- Assistant in "Evaluation of relative glutamate levels in healthy participants using functional magnetic resonance spectroscopy and working memory task". Approved in the Department of Medical Physics, School of Medicine, Tehran University of Medical Sciences (TUMS), 30 January 2024. Research Number: 69020-101-4-1402/ Tracking Code: 69020
- 3. Assistant in "Investigating the effect of injection of human umbilical cord-derived mesenchymal stem cell exosomes pre-conditioned by hypoxia on tumor size, cognitive functions, and expression levels of inflammatory and apoptotic factors in glioblastoma model of rats". Approved in Craniomaxillofacial Research Center, Shariati Hospital, Tehran University of Medical Sciences (TUMS), 7 November 2023.

Research Number: 68571-166-3-1402/ Tracking Code: 68571

- 4. Executor in "The effect of mesenchymal stem cell-derived exosomes on the migration capability of olfactory ensheathing cells towards glioblastoma multiforme tumor: an in vitro and in vivo study". Approved in Cognitive and Behavior Sciences Research Center, Roozbeh Hospital, Tehran University of Medical Sciences (TUMS), 22 August 2023. Research Number: 67556-420-2-1402/ Tracking Code: 67556
- Assistant in "The Role of Cannabinoid System in Hippocampus and Amygdala in Cognitive Functions and Expression of Oxytocin and BDNF in Empathic Pain Model in Rats". Approved in Mazandaran University of Medical Sciences (MUMS), 9 February 2022.

Research Number: 11779

- Assistant in "Design and Manufacture of Device for Intrinsic and Conditioned Preference Assessment of Rodents to Multisensory Stimuli". Approved in Mazandaran University of Medical Sciences (MUMS), 12 December 2021. Research Number: 10187
- 7. Assistant in "Cognitive Behaviors and Neuroimaging to Evaluate Tumor Growth in the Glioma C6 Model by Intracerebral or Systemic Injection of MicroRNAs and GABA/

Glutamate Receptor Agents in Rats". Approved in Cognitive Sciences and Technologies Council, 6 September 2020. Research Number: 9298

- Assistant in "Synthesis of a New Construct Containing Lethal Genes to Reduce the Growth of the Glioblastoma Brain Tumors". Approved in National Institute for Medical Research Development (NIMAD). 8 August 2021. Research Number: 957121
- Executor in "In vivo gene therapy using olfactory ensheathing cells containing thymidine kinase gene in glioblastoma multiforme tumor". Approved in School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS), 13 February 2018.

Research Number: 36385-87-03-96/ Tracking Code: 36385

Technology Unit

- R & D member of a knowledge-based company at parnian gostar parto sanj (PGPS). 27 April 2024- 21 September 2024, Tehran, Iran.
- Member of NeuroTech technology unit at Mazandaran University of Medical Sciences.
 26 June 2022-26 June 2023, Mazandaran, Iran.

Membership

- Society for Neuroscience (SfN), USA
- British Association in Cancer Research (BACR), UK
- Complimentary membership to the European Association in Cancer Research (EACR)
- Ambassador of EACR since 2021.
- Iranian Neuroscience Society (INS), since 2021, Iran

Workshop and Course Attendance

- 1. "Clinical and Research Transcranial Magnetic Stimulation (TMS) Course" organized by National Brain Mapping Lab (NBML), 27 August 2024, Tehran, Iran.
- "Introduction to Basics of Teaching" course organized by Education Development Office (EDO), School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). December 2022-January 2023, Tehran, Iran.
- "Basics of Brain MRI with a Clinical Approach" workshop organized by School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 6 October 2022, Tehran, Iran.
- "Psychophysics and Behavior Measuring" workshop organized by School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 2 March 2016, Tehran, Iran.
- "Economy, Brain, and Decision Making" workshop organized by School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 24 February 2016, Tehran, Iran.
- "Science, Technology and Marketing" workshop organized by School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 31 May 2015, Tehran, Iran.
- 7. "Immunohistochemistry and Immunofluorescent" workshop organized by Tehran University of Medical Sciences (TUMS). 7 November 2012, Tehran, Iran.
- "Introduction to Neurofeedback Course" workshop based on ISNR regulation 24 hours of Continuing Education Credit organized by Paarand Specialized Center for Human Enhancement. 22-24 January 2014, Tehran, Iran.

Encouragements

- Encouraged for "First place in foosball contest" by Dean of School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 16 October 2023, Tehran, Iran.
- Encouraged for "Outstanding student" by Dean of School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS). 16 January 2022, Tehran, Iran.
- 3. Encouraged for "Attendance in preparing educational multimedia". Tehran University of Medical Sciences (TUMS). 23 February 2021, Tehran, Iran.

Laboratory Skills and Experiences/ Potentially teaching skills

- 1. Basic Physiology Laboratory Skills
- 2. Western blotting
- 3. qRT-PCR
- 4. Cell Culture
- 5. Primary Cell Isolation
- 6. Cell transfection and transduction
- 7. Cloning
- 8. Familiar with neuroimaging techniques (MRI, PET)
- 9. Animal modeling
- 10. Histology (Immunohisochemistry, Immunofluerscent, Tunnel, H and E)
- 11. Rat and mouse Brain Stereotaxic surgery
- 12. Behavioral assessments of animals including:
 - 1. Handling and preparation of animals
 - 2. Different routes of drug administration

3. Familiar with apparatuses such as Conditioned place preference, Elevated Plus Maze, Step-through and Step-down passive avoidance learning, Morris water maze, Forced swimming test, ...

- 13. Blood, CSF, Urine and Sperm sampling
- 14. Perfusion
- 15. Using statistical analyses for interpretation of results (familiar with programs such as SPSS, Prism and Sigmaplot).

Names and Addresses of References

 Associate Prof. Mahmoudreza Hadjighassem. Brain and Spinal Cord Injury Research Center (BASIR), Neuroscience Institute, Tehran University of Medical Sciences, Tehran, Iran.

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 Assistant Prof. Zahra Azizi. Department of Molecular Medicine, School of Advanced Technologies in Medicine (SATiM), Tehran University of Medical Sciences (TUMS), Tehran, Iran.

Email: z-azizi@tums.ac.ir / zahra.azizivarzaneh@gmail.com

- Full Prof. Mohammadreza Zarrindast, Department of Pharmacology, School of Medicine, Tehran University of Medical Sciences (TUMS), Tehran, Iran. Email: <u>zarinmr@ams.ac.ir</u>
- Full Prof. Ameneh Rezayof, Department of Animal Biology, School of Biology, College of Science, University of Tehran, Tehran, Iran. Email: <u>Rezayof@khayam.ut.ac.ir/ arezayof@gmail.com</u>