Curriculum Vitae

Personal Information

- **First Name:** Negin
- **Last Name:** Saeedi
- **Place/Date of Birth:** Tehran, Iran / December 30, 1991
- **Email:** negin.saeedi1991@gmail.com, n-saeedi@sbmu.ac.ir
- **Address:** Endocrine Physiology Research Center, Research Institute for Endocrine Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran
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Education

- **Ph.D.** in Medical Physiology, Medical School, Shahid Beheshti University of Medical Sciences, 2019- 2024

  Title of thesis: Investigating the role of gut microbiota in behavioral symptoms and synaptic plasticity changes by chronic morphine administration due to disruption of glial function in male rats

- **M.Sc.** in Medical Physiology, Medical School, Shahid Beheshti University of Medical Sciences, 2016- 2019

  Title of thesis: Investigating the role of hippocampal glial glutamate transporter (GLT-1) in dependence and synaptic plasticity in male morphine-treated rats

- **B.Sc.** in Anesthesiology, School of Allied Medical Sciences, Tehran University of Medical Sciences, 2011- 2015

Membership

- Iranian Society of Physiology and Pharmacology
- Iranian Neuroscience Society

Grants and Awards

- Travel grant of IBRO (International Brain Research Organization)-APRC (Asia/Pacific Regional Committee) Associate School on Advances in Molecular Neurobiology Research, 3-9 March 2019, Indira Gandhi National Tribal University (IGNTU), Amarkantak (MP), India
- Third prize in oral presentation in the IBRO-APRC School of Neuroscience, March 2019, Indira Gandhi National Tribal University (IGNTU), Amarkantak (MP), India
- First prize in poster presentation in 2nd International Congress of Physiology and Pharmacology, 15-18 February 2018, Chabahar, Iran

Highlighted Educational Qualifications

- 1st Rank, Medical Physiology Master of Science Entrance Exam, July 2016
- Ranked 1st in the Ph.D. Graduating in Medical physiology of Shahid Beheshti University of Medical Sciences, 2024

Research Interests

- Neuron glia crosstalk
- Gut microbiota-Brain axis
- Neurodegenerative Diseases
- Synaptic plasticity
- Aging

Laboratory Skills

- Animal manipulation (Rat and Mouse)
- Behavioral tests (Morphine withdrawal test; Hyperalgesia assessment with radiant heat and hot plate, Morris water maze test, Y maze test, CPP.)
- Morphine dependence model
- PTZ Seizure model
- Cannula implantation

- Streotactic surgery
- Field Potential Recording
- Physiology Lab [RBC and WBC count with Neubaur, RBC and WBC Enumeration, ESR, …]
- Molecular techniques (DNA extraction, Real Time PCR)
- Rat brain perfusion
- Tissue sectioning by cryostats
- Histological Techniques (Immunohistochemistry)

Projects

- Investigating the possible mechanism of ceftriaxone in reducing morphine dependence through neurogenesis in male rats. **Negin Saeedi**, Narges Hosseinmardi, Zohre Tavassoli. This project was supported by Tehran University of Medical Sciences (2024).
- Investigating the role of microbiota in controlling the stress response of patients undergoing orthopedic surgery with general anesthesia. Parisa Kianpour, **Negin Saeedi**, Pejman Pourfakhr. This project was supported by Tehran University of Medical Sciences (2024).
- The role of gut microbiota in behavioral characteristics and synaptic plasticity changes in hippocampus induced by chronic morphine administration. **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi, Fereshteh Pourabdolhossein, Gila Behzadi, Masoud Dadashi. This project was supported by Shahid Beheshti University of Medical Sciences (2023).
- Examinig the activation of glial glutamate transporter (GLT-1), on the occurrence of seizure behaviors and metaplasticity in the hippocampus of pentylentetrazole-induced kindled rats. Narges Hosseinmardi, Mohadeseh Giahi, **Negin Saeedi**, Fatemeh Rostami, Mahyar Janahmadi. This project was supported by Shahid Beheshti University of Medical Sciences (2023).
- Investigating the effect of LPS of gut microbiota through the activation of brain microglia on metaplasticity caused by morphine administration and behavioural characteristics in rats; Masoud Dadashi, **Negin Saeedi**, Narges Hosseinmardi. This project was supported by Shahid Beheshti University of Medical Sciences (2023).
- Evaluation of the effect of activating glutamate transporter of hippocampal glial cells on the symptoms of dependence induced withdrawal syndrome in morphine treated male rats; **Negin Saeedi**, Narges Hosseinmardi. This project was supported by Shahid Beheshti University of Medical Sciences (2021).
- Investigating the effect of glial water channel aquaporin-4 inhibition on electrophysiological properties and voltage-gated potassium A type currents of hippocampal CA1 neurons in a rat model

of epilepsy. Fatemeh Rostami, **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi. This project was supported by Shahid Beheshti University of Medical Sciences (2020).

- The effect of glial cells inhibition on spatial memory deficits and synaptic plasticity of hippocampal CA1 neurons in a rat model of traumatic brain injury (TBI); Amir Rezagholizadeh, Narges Hosseinmardi, Mahyar Janahmadi, Mohammad Sayyah, **Negin Saeedi**. This project was supported by Shahid Beheshti University of Medical Sciences (2020).
- The role of hippocampal astrocytic connexion-43 in dependence and synaptic plasticity in male morphine treated rats; Mahgol Darvish, Narges Hosseinmardi, Mahyar Janahmadi, **Negin Saeedi**. This project was supported by Shahid Beheshti University of Medical Sciences (2020).
- Investigating the role of hippocampal glial glutamate transporter in dependence and synaptic plasticity in male morphine treated rats; **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi, Mahgol Darvish. This project was supported by Shahid Beheshti University of Medical Sciences (2020).
- The effect of adding various doses of epinephrine to fentanyl and bupivacaine in spinal anesthesia for orthopedic surgery for lower limb; Pejman Pourfakhr, **Negin Saeedi**, Gilda Barzin; IRCT201505193829N5. This project was supported by Tehran University of Medical Sciences and Sina Hospital (2015).
- Influence of Continuous infusion of remifentanil on postoperative hyperalgesia and morphine consumption after spine surgery: randomized clinical trial; Reza Shariat Moharari, **Negin Saeedi**, Elaheh Sahraei, Farhad Etezadi, Mohammad Reza Khajavi, Ayat Ahmadi, Pejman Pourfakhr, Atabak Najafi; IRCT2014072618597N1. This project was supported by Tehran University of Medical Sciences and Sina Hospital (2014).

Workshops

1. Assisted in holding and teaching the "Evoked Field Potential Recording workshop", Neuroscience Research Center, Institute of Neuroscience and Cognition, Shahid Beheshti University of Medical Sciences, Tehran, Iran, 29 May 2025.
2. Virtual workshop of "Microorganisms in health and disease", Microbiology Research Center, Pasteur Institute of Iran, Tehran, Iran, 17 September 2021.
3. Virtual workshop of "evoked field potential recording", Physiology department and Institute of brain and cognition, Tarbiat Modares University, Tehran, Iran, 13 October 2021.
4. Virtual workshop of "LFP signal recording and processing", Physiology department and Institute of brain and cognition, Tarbiat Modares University, Tehran, Iran, 14 October 2020.

5. Virtual workshop of “Behavioral studies in laboratory rodents”, Neuroscience Research Center, Shahid Beheshti University of Medical Sciences and Health Services, Tehran, Iran, 11 November 2020.
6. Virtual workshop of “evoked field potential recording”, Physiology department, Tarbiat Modares University, Tehran, Iran, 9 September 2020.
7. Virtual workshop of “single unit recording”, Physiology department, Tarbiat Modares University, Tehran, Iran, 5 August 2020.
8. Assisted in holding and teaching the “Field Potential Recording workshop for M.Sc. and Ph.D. students of physiology”, Neuroscience Research Center, Shahid Beheshti University of Medical Sciences and Health Services, Tehran, Iran, 4-5 February 2019.
9. Workshop on “MATLAB for Electrophysiology Course”, Shahid Beheshti University of Medical Sciences and Health Services, Tehran, Iran, May 2018.
10. “Research Methods Workshop”, Student Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran, March 2012.
11. “Electronic resource search workshop”, Student Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran, March 2012.
12. “Proposal designing workshop”, Student Scientific Research Center, Tehran University of Medical Sciences, Tehran, Iran, March 2012.
13. Workshop on “End note”, Tehran University of Medical Sciences, Tehran, Iran, March 2012.

Congresses and Webinars

1. Participated in the 1st International Conference for Young Neuroscientists “Brain and Neuroplasticity”. Tbilisi, Georgia. 21-23 October, 2024.
2. Participated in 5th International and 26th Iranian Congress of Physiology and Pharmacology, Semnan University of Medical Sciences, Semnan, Iran, 11-13 October 2023.
3. Participated in International Webinar on Stages Involved in Pre-Clinical Studies of Novel Drug Molecule, Department of Chemistry, K. Ramakrishnan College of Engineering, Samayapuram, Trichy. 9 July 2020.
4. Participated in 8th Basic and Clinical Neuroscience Congress, Tehran, Iran, 18-20 December 2019.
5. Participated in 3rd International and 24th Iranian Congress of Physiology and Pharmacology, Shahed University, Tehran, Iran, 30 October-1 Novomber 2019.
6. Assisted in executive process of the 3rd International and 24th Iranian Congress of Physiology and Pharmacology, Shahed University, Tehran, Iran, 30 Oct-1 Nov 2019.

7. IBRO-VLTP Course in Neuroscience, Tarbiat Modares University, Tehran, Iran, 30 September-7 October 2019.
8. IBRO-APRC Associate School on Advances in Molecular Neurobiology Research, Indira Gandhi National Tribal University (IGNTU), Amarkantak (MP), India, 3-9 March 2019.
9. Participated in the 1st Symposium of Tissue Engineering and Regenerative Medicine in Trauma, Shahid Beheshti University of Medical Sciences and Health Services, Tehran, Iran, 9 April 2018.
10. Participated in 2nd International and 23rd Iranian Congress of Physiology and Pharmacology, Chabahar International Conference Hall, Chabahar, Iran, 15-18 February 2018.

Oral Presentations

1. **Negin Saeedi**, Fereshteh Pourabdolhossein, Masoud Dadashi, Mahyar Janahmadi, Gila Behzadi, Narges Hosseinmardi. Gut-brain axis prominence in the adjustment of addictive-like behaviors. The 1st International Conference for Young Neuroscientists "Brain and Neuroplasticity". Tbilisi, Georgia. 21-23 October, 2024.
2. **Negin Saeedi,** N. Hosseinmardi, M. Janahmadi, M. Dadashi, F. Pourabdolhossein, J. Behzadi
   The role of gut microbiota in the occurrence of behavioral symptoms caused by chronic administration of morphine. 5th International and 26th Iranian Congress of Physiology and Pharmacology Semnan University of Medical Sciences, Semnan, Iran. 11-13 October 2023.
3. **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi. The role of hippocampal glial glutamate transporter (GLT-1) on synaptic dysfunction in morphine dependent rats. 3rd International and 24th Iranian Congress of Physiology and Pharmacology, Shahed University, Tehran, Iran, 30 October-1 November 2019.
4. **Negin Saeedi**. Microbiota and Diseases. 3rd International and 24th Iranian Congress of Physiology and Pharmacology, Shahed University, Tehran, Iran, 30 October-1 November 2019.
5. **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi. Investigating the role of hippocampal glial glutamate transporter (GLT-1) in dependence in male morphine-treated rats. IBRO-APRC Associate School on Advances in Molecular Neurobiology Research, Indira Gandhi National Tribal University (IGNTU), Amarkantak (MP), India, 7 March 2019.

Poster Presentations

1. Mahgol Darvish, **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi, Soomayyeh Heysieattalab. Activation of hippocampal glial glutamate transporter (GLT-1) reduces the naloxone-induced withdrawal signs in morphine dependent rats. 3rd International and 24th Iranian Congress of Physiology and Pharmacology, Shahed University, Tehran, Iran, 30 October- 1 November 2019.

2. **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi, Soomayyeh Heysieattalab. Inhibition of hippocampal glial cells reduces the naloxone induced withdrawal signs in morphine dependent rats. 2nd International and 23rd Iranian Congress of Physiology and Pharmacology, Chabahar International Conference Hall, Chabahar, Iran, 15-18 February 2018.

Publication

1. **Negin Saeedi**, Fereshteh Pourabdolhossein, Masoud Dadashi, Ali Jaafari Suha, Mahyar Janahmadi, Gila Behzadi, Narges Hosseinmardi. Faecal Microbiota Transplantation Modulates Morphine Addictive-Like Behaviours Through Hippocampal Metaplasticity. *Addiction Biology*. 2025
2. **Negin Saeedi**, Mohadeseh Giahi, Ali Jaafari Suha, Hossein Azizi, Mahyar Janahmadi, Narges Hosseinmardi. Differential Effects of Intrahippocampal Administration of Ceftriaxone on Morphine Dependence and Withdrawal Syndrome in Rats. *ACS Omega*. 2024.
3. Mahgol Darvishmolla, **Negin Saeedi**, Zohreh Tavassoli, Soomaayeh Heysieattalab, Mahyar Janahmadi, Narges Hosseinmardi. Maladaptive plasticity induced by morphine is mediated by hippocampal astrocytic Connexin-43. *Life Sciences*. 2023.
4. **Negin Saeedi**, Soomaayeh Heysieattalab, Mahyar Janahmadi, Narges Hosseinmardi. The role of glial glutamate transporter in the baseline synaptic response and short term synaptic plasticity of CA1 area of the hippocampus in male wistar rats. *Medical Journal of Tabriz University of Medical Sciences.* 2022.
5. Mahgol Darvishmolla, Soomaayeh Heysieattalab, **Negin Saeedi**, Narges Hosseinmardi, Mahyar Janahmadi. Involvement of Hippocampal Astrocytic Connexin-43 in Morphine dependence. *Physiology & Behavior*. 2022.
6. Reza Shariat Moharari, Shervin Shahinpour, **Negin Saeedi**, Elaheh Sahraei, Atabak Najafi, Farhad Etezadi, Mohamadreza Khajavi, Ayat Ahmadi, Pejman Pourfakhr. Comparison of Intraoperative Infusion of Remifentanil versus Fentanyl on Pain Management in Patients Undergone Spine Surgery: A Double Blinded Randomized Clinical Trial. *Anesthesiology and Pain Medicine*. 2021.
7. **Negin Saeedi**, Mahgol Darvishmolla, Zohreh Tavassoli, Shima Davoudi, Soomaayeh Heysieattalab, Narges Hosseinmardi, Mahyar Janahmadi, Gila Behzadi. The role of hippocampal glial glutamate transporter (GLT-1) in morphine-induced behavioral responses. *Brain and Behavior*. 2021.
8. Mahgol Darvishmolla, **Negin Saeedi**, Soomaayeh Heysieattalab, Narges Hosseinmardi, Mahyar Janahmadi The Role of Astrocytic Cx43 in Baseline Synaptic Response and Short Term Synaptic Plasticity in CA1 Area of the Hippocampus. *Journal of Mazandaran University of Medical Sciences.* 31 (198), 169-179. 2021.

9. Soomaayeh Heysieattalab, Jafar Doostmohammadi, Mahgol Darvishmolla, **Negin Saeedi,** Narges Hosseinmardi, Masoumeh Gholami, Mahyar Janahmadi, Samira Choopani. Non-selective COX inhibitors impair memory formation and short-term but not long-term synaptic plasticity. *Naunyn-Schmiedeberg's Archives of Pharmacology.* 2021. 9 (394) 1879-1891.
10. Abizadeh Marzieh, Heysieattalab Soomaayeh, **Saeedi Negin,** Hosseinmardi Narges, Janahmadi, Mahyar, Salari Farhad, Golpayegani Mehdi, Shojaei Asie. Ameliorating Effects of Dorema ammoniacum on PTZ-induced Seizures and Epileptiform Brain Activity in Rats. *Planta Medica*. 2020. 18 (86) 1353-1362.
11. Mojtaba Rezaei, Mahmoud Omidbeigi, Sra Hanaei, **Negin Saeedi**, Khatereh Naghdi, Alexander R. Vaccaro, Vafa Rahimi-Movaghar. Frequently asked questions of individuals with spinal cord injuries: results of a web-based consultation service in Iran. *Spinal Cord Series and Cases.* 2018; 4:50.
12. Pejman Pourfakhr, Ailar Ahangari, Farhad Etezadi, Reza Shariat Moharari, Ayat Ahmadi, **Negin Saeedi**, Atabak Najafi. Comparison of Nasal Intubations by Glidescope With and Without a Bougie Guide in Patients Who Underwent Maxillofacial Surgeries: Randomized Clinical Trial. *Anesth Analg.* 2018; 126(5):1641-1645.