

## **Farzaneh Rostamzadeh**

Assistant Professor of Physiology

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### **Personality**

**Date of Birth:** 23/ 09/1976

**Nationality:** Iranian

**Marital Status:** Married with three children

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### **Educational Background**

**B.Sc:** Nursing (1998) Kerman University of Medical Sciences, Kerman, Iran

**M.Sc:** Physiology (2007), Semnan University of Medical Sciences, Semnan, Iran

**Ph.D:** Physiology (2018), Kerman University of Medical Sciences, Kerman, Iran

### **THESIS**

**M.Sc Thesis Title:** Effects of intra-hippocampal injection of Kappa opioid receptor agonist and antagonist on glucocorticoid-induced impairment of spatial memory retrieval in rats

**Ph.D. Thesis Title:** Role of kappa opioid receptors and their interaction with apelin receptors in positive and negative inotropic effects of apelin in the heart of rats with chronic renovascular hypertension

### **Research Technical Skills**

- Learning and memory test (Morris water maze)
- Stereotaxic implantation of cannulas into specific brain regions in rodents.
- Induction of renovascular hypertension (Goldblatt) in rodents.
- Induction of Myocardial infarction (left anterior descending artery (LAD) occlusion) in rodents.

- Recording Blood Pressure in laboratory animals (Invasive and non-invasive) in rodents.
- Recording ECG and Contractility indices and Cardiac Function (Powerlab system)
- Induction of diabetes in animals
- Induction of Asthma in laboratory animals
- Western Blot Technique
- Immunoprecipitation Technique
- Real Time PCR Technique
- ELISA Technique
- SPSS Software
- End note Software
- Mendeley
- Lab Chart Software

## **Research Items**

Effects of Nanoparticles on myocardial infarction

Effects of Exercise on myocardial infarction

Effects of Stem cell on myocardial infarction

Effects of Apelin on Renovascular hypertension and heart failure.

The function of receptors heterodimerization

Noncoding RNAs (lncRNAs and microRNA) in myocardial infarction

## **Publication**

### **In English**

- 1) **Rostamzadeh F**, Najafipour H, Yeganeh-Hajahmadi M, Esmaeili-mahani S, Joukar S, Iranpour M. Heterodimerization of apelin and opioid receptors and cardiac inotropic and

- lusitropic effects of apelin in 2K1C hypertension: Role of pERK1/2 and PKC. *Life sciences*. 2017 Dec 15; 191:24-33.
- 2) **Rostamzadeh F**, Najafipour H, Yeganeh-Hajahmadi M, Joukar S. Opioid receptors mediate inotropic and depressor effects of apelin in rats with 2K1C-induced chronic renovascular hypertension. *Clinical and Experimental Pharmacology and Physiology*. 2018 Feb;45(2):187-97.
  - 3) Najafipour H, **Rostamzadeh F\***, Yeganeh-Hajahmadi M, Joukar S. Improvement of Cardiac Function in Rats With Myocardial Infarction by Low-Intensity to Moderate-Intensity Endurance Exercise Is Associated With Normalization of Klotho and SIRT1. *Journal of cardiovascular pharmacology*. 2021 Jan 1;77(1):79-86.
  - 4) Saeideh Jafarinejad Farsangi, **Farzaneh Rostamzadeh\***, Mozhgan Sheikholeslami, Elham Jafari, Mohammadreza Karimzadeh. Modulation of the Expression of Long Non-Coding RNAs H19, GAS5, and MIAT by Endurance Exercise in the Hearts of Rats with Myocardial Infarction. *Cardiovascular Toxicology*. 2021 Feb;21(2):162-8.
  - 5) Yeganeh-Hajahmadi M, Najafipour H, **Rostamzadeh F\***, Naghibzadeh-Tahami A. Klotho and SIRT1 changes from pre-diabetes to diabetes and pre-hypertension to hypertension. *Diabetology & Metabolic Syndrome*. 2021 Dec;13(1):1-8.
  - 6) Yeganeh-Hajahmadi M, Najafipour H, **Rostamzadeh F**. The differential effects of low and high doses of apelin through opioid receptors on the blood pressure of rats with renovascular hypertension. *Hypertension Research*. 2017 Aug;40 (8):732-7
  - 7) Najafipour H, Afshari M, **Rostamzadeh F**. Prevalence of multiple coronary artery disease risk factors in Kerman: A population-based study in Southeast Iran. *Iranian journal of medical sciences*. 2018 Mar;43(2):140.
  - 8) Yeganeh-Hajahmadi M, Najafipour H, **Farzaneh F**, Esmaeili-Mahani S, Joukar S. Effect of apelin on cardiac contractility in acute reno-vascular hypertension: The role of apelin receptor and kappa opioid receptor heterodimerization. *Iranian journal of basic medical sciences*. 2018 Dec;21(12):1305.
  - 9) Nakhaee MR, Joukar S, Zolfaghari MR, **Rostamzadeh F**, Masoumi-Ardakani Y, Iranpour M, Nazari M. Effects of Endurance Exercise Training on Cardiac Dysfunction Induced by Waterpipe Tobacco Smoking. *Addiction & Health*. 2019 Apr; 11(2):100.
  - 10) Samareh Fekri M, Poursalehi HR, Sharififar F, Mandegary A, **Rostamzadeh F**, Mahmoodi R. The effects of methanolic extract of *Glycyrrhiza glabra* on the prevention and treatment of bleomycin-induced pulmonary fibrosis in rat: experimental study. *Drug and Chemical Toxicology*. 2019 May 8:1-7.
  - 11) Rajizadeh MA, Najafpour H, Samareh Fekri M, **Rostamzadeh F**, Jafari E, Bejeshk MA, Masoumi-Ardakani Y. Anti-inflammatory and anti-oxidative effects of Myrtenol in the rats with allergic asthma. *Iranian Journal of Pharmaceutical Research*. 2019 Jul 1;18(3):1488-98.

- 12) Bejeshk MA, Samareh Fekri M, Najafipour H, **Rostamzadeh F**, et al. Anti-inflammatory and anti-remodeling effects of myrtenol in the lungs of asthmatic rats: Histopathological and biochemical findings. *Allergol Immunopathol (Madr)*. 2019;47(2):185-193. doi:10.1016/j.aller.2018.09.003.
- 13) Mehrabani, Mehrnaz, Zeinab Ansari asl, **Farzaneh Rostamzadeh**, Saeideh Jafarinejad Farsangi, Mahnaz Sadat Hashemi, Mozghan Sheikholeslami, and Zeinab Neisi. Fabrication and biocompatibility assessment of polypyrrole/cobalt (II) metal-organic frameworks nanocomposite. *Turkish Journal of Chemistry*. 2020 Apr 1;44(2):472-85.
- 14) Najafipour Hamid, Nasri Hamid Reza\*, **Rostamzadeh Farzaneh**, Amirzadeh Raheleh, Shadkam Mitra, Mirzazadeh Ali. Prevalence and incidence of pre-hypertension and hypertension (awareness/control) in Iran: Findings from Kerman coronary artery diseases risk factors study 2 (KERCADRS). *Journal of Human Hypertension*. 2020 Sep 14:1-2.
- 15) Jafarinejad-Farsangi S, Ansari-Asl Z, **Rostamzadeh F**, Neisi Z. Polypyrrole/Ni (II) Metal-Organic Frameworks Nanocomposites: Fabrication, Characterization, and Biocompatibility Investigations. *Materials Today Communications*. 2021 Jun 17:102559.
- 16) Amirreza Sadeghifar, Mohamad Sheibani, Siyavash Joukar, Shahriar Dabiri, Samanehsadat Alavi, Omid Azari, Darioush Vosoghi, Yas Zeynali, Yasman Zeynali, Mohamad Shahraki, Amirhesam Torghabe, **Farzaneh Rostamzadeh**, Alireza Nasri. The Effect of Waterpipe Tobacco Smoking on Bone Healing Following Femoral Fractures in Male Rats. *Frontiers in Surgery*. 2021:425.
- 17) Samaneh Sadat Alavi, Siyavash Joukar, **Farzaneh Rostamzadeh**, Hamid Najafipour, Fatemeh Darvishzadeh-Mahani, Abbas Mortezaeizade. Involvement of Sirtuins and Klotho in Cardioprotective Effects of Exercise Training Against Waterpipe Tobacco Smoking-Induced Heart Dysfunction. *Frontiers in Physiology*. 2021:894.
- 18) Saeideh Jafarinejad-Farsangi, Maryam Moazzam Jazi, **Farzaneh Rostamzadeh**, Morteza Hadizadeh. High affinity of host human microRNAs to SARS-CoV-2 genome: An in silico analysis. *Non-coding RNA Research*. 2020 Dec 1;5(4):222-31.
- 19) Yeganeh Hajahmadi M, Najafipour H, **Rostamzadeh F**, Masoumi-Ardakan Y. SIRT1 and Klotho expression in the heart and kidneys of rats with acute and chronic renovascular hypertension. *Croatian Medical Journal*. 2021 Oct 21;62(5):504-12.
- 20) Najafipour H, Masoumi M, Amirzadeh R, **Rostamzadeh F**, Foad R, Shadkam Farrokhi M. Trends in the Prevalence and Incidence of Opium Abuse and its Association with Coronary Artery Risk Factors in Adult Population in Iran: Findings from Kerman Coronary Artery Disease Risk Factors Study. *Iranian Journal of Medical Sciences*. 2021 Dec 29.
- 21) **Rostamzadeh F**, Shadkam-Farrokhi M, Jafarinejad-Farsangi S, Najafipour H, Ansari-Asl Z, Yeganeh-Hajahmadi M. PEGylated Graphene Quantum Dot Improved Cardiac

Function in Rats with Myocardial Infarction: Morphological, Oxidative Stress, and Toxicological Evidences. *Oxidative Medicine and Cellular Longevity*. 2021 Nov 20;2021.

- 22) **Rostamzadeh F**, Najafipour H, Jafarinejad-Farsangi S, Ansari-Asl Z. Beneficial effects of PEGylated graphene quantum dot on arrhythmias induced by myocardial infarction. *Biotechnology and Applied Biochemistry*. 2021 Nov 12.
- 23) Alavi SS, Joukar S, **Rostamzadeh F**, Najafipour H, Darvishzadeh-Mahani F, Mortezaeizade A. Exercise Training Attenuates Cardiac Vulnerability and Promotes Cardiac Resistance to Isoproterenol-Induced Injury Following Hookah Smoke Inhalation in Male Rats: Role of Klotho and Sirtuins. *Cardiovascular Toxicology*. 2022 Jun;22(6):501-14.
- 24) Sargazi ML, Jafarinejad-Farsangi S, Moazzam-Jazi M, **Rostamzadeh F**, Karam ZM. The crosstalk between long non-coding RNAs and the hedgehog signaling pathway in cancer. *Medical Oncology*. 2022 Sep;39(9):1-5.
- 25) Ahmadianmoghadam MA, Nematollahi MH, Mehrabani M, Fatemi I, **Rostamzadeh F**, Dell'Agli M, Mehrabani M, Abolhassani M, Mehrbani M. Effect of an herbal formulation containing Peganum harmala L. and Fraxinus excelsior L. on oxidative stress, memory impairment, and withdrawal syndrome induced by morphine. *International Journal of Neuroscience*. 2022 Sep 28(just-accepted):1-21.
- 26) **Rostamzadeh Farzaneh**, Najafipour Hamid, Yazdani Rostam, Nakhaei Samira, Alinaghi Langari Ahmad. Changes in serum levels of apelin and nitric oxide in hospitalized patients with COVID-19: association with hypertension, diabetes, obesity, and severity of disease. *European Journal of Medical Research*. 2022 Dec;27(1):1-8.
- 27) **Rostamzadeh, Farzaneh**, Saeideh Jafarinejad-Farsangi, Zeinab Ansari-Asl, Mitra Shadkam Farrokhi, and Elham Jafari. "Treatment for Myocardial Infarction: In Vivo Evaluation of Curcumin-Loaded PEGylated-GQD Nanoparticles." *Journal of Cardiovascular Pharmacology* 81, no. 5 (2023): 361-372.

## Publication in Persian

**1-Rostamzadeh F**, Vafaei AA, Rashidy-Pour A, Haghighi SA. Evaluation the role of hippocampal Kappa opioid receptors in retrieval of spatial memory in rats. *Pharm Sci*. 2009 Jan 1;14:219-24.

## Abstract in International and National Congresses

- 1- Vafaei AA, **Rostamzadeh F**, Rashidy-Pour A, Haghighi S. Evaluation the role of hippocampal kappa opioid receptors in retrieval of spatial memory in rats. The13th European Congress of Clinical Neurophysiology. 2008 Istanbul, Turkey.
- 2-Vafaei AA, **Rostamzadeh F**, Rashidy-Pour A, Haghighi S. Effects of intra hippocampal injection of kappa opioid receptor agonist and antagonist on glucocorticoid –induced impairment of spatial memory retrieval in rats. The13th European Congress of Clinical Neurophysiology. 2008(119): Istanbul, Turkey.
- 3-Khaksari M., Rashidipour A., Vafaei AA., **Rostamzadeh F**. Involvement of central mineralocorticoid receptors in glucocorticoid -induced deficits in spatial memory retrieval in rats. 18th Iranian congress of Physiology & Pharmacology. August 2007, Mashhad, Iran.
- 4- **Rostamzadeh F.**, Vafaei AA., Rashidipour A., Khaksari M. Effects of intra-hippocampal injection of kappa opioid receptor agonist on glucocorticoid-induced impairment of spatial memory retrieval in rats. 18th Iranian congress of Physiology & Pharmacology, August 2007, Mashhad, Iran.
- 5-Hamid Najafipour, Mahbobeh Yeganeh, **Farzaneh Rostamzadeh**, Sodeh Rajabi. Myocardial ischemia/reperfusion injury: role of apelin and micrnas. 19th Iranian Congress of Physiology and Pharmacology, November 2009 Tehran Iran.
- 6-**Rostamzadeh Farzaneh**, Najafipour Hamid, Masoomi Mohammad , Shahesmaeili Armita, Haghdooost Ali Akbar, Afshari Mahdi, Nasri, Hamid Reza, Kahnooji, Masoomeh. Association between opium abuses as a coronary artery disease risk factor (CADRF) with other CADRFs: results from a community based study. 21th Iranian Congress of Physiology and Pharmacology, August 2013 Tabriz – Iran.
- 7-H Najafipour, MY Hajahmadi, **F Rostamzadeh**. MicroRNAs: Their Biology and Roles in Cardiac Ischemic Injury/Protection. 21th Iranian Congress of Physiology and Pharmacology, August 2013 Tabriz – Iran.
- 8-Mahboobeh Yeganeh Hajahmadi, Hamid Najafipour, **Farzaneh Rostamzadeh**, Siavash Joukar.

Role of kappa opioid receptors in apelin dependent lowering of blood pressure in reno vascular hypertensive rats, 22th Iranian Congress of Physiology and Pharmacology, 2015 Kashan Iran.

9- Hamid Najafipour, Mahbobeh Yeganeh, **Farzaneh Rostamzadeh**, Sodeh Rajabi. Myocardial ischemia/reperfusion injury: role of apelin and micornas. 22th Iranian Congress of Physiology and Pharmacology, 2015 Kashan, Iran.

10-Hamid Najafipour, **Farzaneh Rostamzadeh**, Mahboobeh Yeganeh-Hajahmadi, Saeed Esmaeilimahani, Siyavash Joukar. Heterodimerization of apelin and opioid receptors and cardiac inotropic and lusitropic effects of apelin in chronic 2K1C hypertension: Role of pERK1/2 and PKC. 23th Iranian Congress of Physiology and Pharmacology, 2018 Chabahar, Iran.

11- Mahboobeh Yeganeh- Hajahmadi, Hamid Najafipour, **Farzaneh Rostamzadeh**, Saeed Esmaeilimahani, Siyavash Joukar. The effect of low and high doses of apelin on myocardial contractility in acute renovascular hypertensive rats and some related mechanisms. 23th Iranian Congress of Physiology and Pharmacology, 2018 Chabahar, Iran.

12- **Farzaneh Rostamzadeh**, Hamid Najafipour, Mahboobeh Yeganeh-Hajahmadi, Siyavash Joukar, Zeinab Kordestani. Opioid receptors mediate depressor effects of apelin in rats with chronic renovascular hypertension: Role of Gi and PKC. 23th Iranian Congress of Physiology and Pharmacology, 2018. Chabahar

13-Siyavash Joukar , Mohammad Reza Nakhaee , Mohammad Reza Zolfaghari , Nouzar Nakhaee, **Farzaneh Rostamzadeh**, Yaser Masoumi-Ardakani, Maryam Iranpour, Mozhdeh Nazari. Exercise training mitigates the heart dysfunction and lung inflammatory response induced by exposing to waterpipe tobacco smoke. 24th Iranian Congress of Physiology and Pharmacology, 2019. Tehran, Iran.

14- Hamid Najafipour, Mehdi Bagheri, Shadan Saberi, Mitra Shadkam Farokhi, Raheleh Amirzadeh, **Farzaneh Rostamzadeh**. The Prevalence and Predictors of Overweight and Obesity and their five-year incidence in a General Population: A Community-based Study in Southeastern

Iran (KERCADR Study, Phase 2). 24th Iranian & 3rd International Congress of Physiology and Pharmacology, 2019 Tehran, Iran.

15-Mohammad Abbas Bejeshk , Mitra Samareh Fekri, Hamid Najafipour, **Farzaneh Rostamadeh**, Elham Jafari, Mohammad Amin Rajizadeh, Yaser Masoumi- Ardakani. Anti-inflammatory and Anti-remodeling Effects of Myrtenol in the lungs of Asthmatic Rats: Histopathological and Biochemical Findings. 24th Iranian & 3rd International Congress of Physiology and Pharmacology, 219 Tehran, Iran

16- Mohammad Amin Rajizadeh, Hamid Najafipour, Mitra Samareh Fekri, **Farzaneh Rostamadeh**, Elham Jafari, Mohammad Abbas Bejeshk , Yaser Masoumi- Ardakani. Anti-inflammatory and anti-oxidative effects of Myrtenol in the rats with allergic asthma. 24th Iranian & 3rd International Congress of Physiology and Pharmacology, 2019 Tehran, Iran

17- Farzaneh Rostamzadeh \*, Hamid Najafipour , Soheil Aminizadeh. **Enhancement of the cardioprotective effects of MitoQ with moderate-intensity endurance exercise in rats with isoproterenol-induced myocardial infarction.** 25<sup>th</sup> Iranian & 4rd International Congress of Physiology and Pharmacology, 2021 Tehran, Iran

18. **Farzaneh Rostamzadeh\***, Hamid Najafipour , Saeideh Jafarinejad-Farsangi , Mitra Shadkam-Farrokh. PEGylated Graphene quantum dot improved cardiac function in rats with myocardial infarction: Morphological and oxidative stress evidences. 25<sup>th</sup> Iranian & 4rd International Congress of Physiology and Pharmacology, 2021 Tehran, Iran

19. **Farzaneh Rostamzadeh**, Hamid Najafipour\*, Saeideh Jafarinejad-Farsangi, Zeinab Ansari-Asl<sup>4</sup> Therapy for myocardial infarction: In vivo evaluation of curcumin-loaded PEGylated-GQDs nanoparticles. 25<sup>th</sup> Iranian & 4rd International Congress of Physiology and Pharmacology, 2021 Tehran, Iran

20. **Farzaneh Rostamzadeh** , Hamid Najafipour\* , Amira Nakhaei , Rostam Yazdani Low Ang-(1–7) and high des-Arg9 bradykinin serum levels are correlated with cardiovascular risk factors in patients with COVID-19, In The First International Congress on COVID -19 World Experiences organized by Zahedan University Of Medical Sciences on May 10 - 12, 2023.