

# BEHNAZ RAHIMI

## CONTACT DETAILS

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<https://scholar.google.com/citations?user=POipEVoAAAAJ&hl=en>

## STUDIES AND DIPLOMAS

**2016/09-2022/06**

Doctorate, Doctor of Philosophy, Medical Physiology  
Iran University of Medical Sciences, Tehran, Iran  
Thesis: **“The effect of Sertoli cell transplantation on pain threshold axonal regeneration and apoptosis in male rat model of spinal cord injury”**

**2013/09-2016/01**

Masters of Science, Physiology  
Shahid Beheshti University, Tehran, Iran  
Thesis: **“Evaluation of the effect of *Nigella sativa* nutrition on expression of NF- $\kappa$ B and VCAM -1 in ischemic tolerance in rat stroke model”**

**2007/09-2012/02**

Bachelor of Science, Biology  
Ferdowsi University, Mashhad, Iran  
Thesis: **“Chromosomal member and its taxonomical significance of 4 species *Alyssum*”**

## TEACHING EXPERIENCE

**Saveh University Of Medical Sciences**, Markazi Province, Iran Feb 2017 to Jun 2018

**Instructor**, School of Nursing and Midwifery

- Physiology for Paramedic student, an undergraduate course averaging 45 students per semester, covering the following topics: Physiology body fluids, blood, body defense mechanisms, peripheral, central and autonomic nervous system, Physiology of cardiovascular, respiratory, digestive, endocrine, and renal systems
- Developed quizzes, exams, and homework
- Revised the syllabus to meet accreditation standards

**Saveh University Of Medical Sciences**, Markazi Province, Iran Feb 2017 to May 2017

**Instructor**, School of Nursing and Midwifery

physiology for Environmental Health student, an undergraduate course averaging 45 students per semester, covering the following topics: Basic Concepts (plasticity, comparative methods), Homeostasis, Water Balance, Muscles and Movement, body defense mechanisms

#### **Masters Students Advised**

“Evaluation of the effect of intravenous injection of conditioned medium obtained from human placental amniotic membrane stem cell culture on pain, spinal cord CCL2 level, and oxidative stress in a model of peripheral neuropathic pain”, presently studying

**Iran University of Medical Sciences, Tehran, Iran**

May 2021 to now

Teaching Assistant in Department of Physiology

- CCI surgical training
- IHC training
- Behavioral test training
- Western Blot training

## **RESEARCH PROJECT**

### **2020-2021**

Research grant from Iran University of Medical Sciences. Somayeh Hashamdar, **Behnaz Rahimi**, Fatemeh Ramezani. “The differentiation evaluation of PC12 cells to neuronal cells on PMMA polymer.”

### **2019-2021**

Research grant from Iran University of Medical Sciences. Somayeh Hashamdar, **Behnaz Rahimi**, Fatemeh Ramezani. "The differentiation evaluation of PC12 cells on Modified surface PMMA polymer.”

### **2018-2020**

Kahuripour, Mahnaz, Zahra Behroozi, **Behnaz Rahimi**, Michael R. Hamblin, and Fatemeh Ramezani. "The effect of curcumin on the improvement of functional recovery after spinal cord injury: a meta-analysis study." Research grant from Iran University of Medical Sciences.

#### 2019-2021

Zahra Behroozi, **Behnaz Rahimi**, Michael R Hamblin, Farinaz Nasirinezhad, Atousa Janzadeh, Fatemeh Ramezani "Injection of cerium oxide nanoparticles to nerve regeneration after Spinal Cord Injury" Research grant from Iran University of Medical Sciences.

#### 2018-2020

Research grant from Iran University of Medical Sciences. Behroozi, Zahra, **Behnaz Rahimi**, Keihan Kookli, Mohammad S. Safari, Michael R. Hamblin, Maryam Razmgir, Atousa Janzadeh, and Fatemeh Ramezani. "Systematic review and meta-analysis of evaluation distribution of gold nanoparticles into different tissue in vivo."

## PUBLICATIONS

### *Journal Publications*

1. Behroozi, Zahra, Fatemeh Ramezani, Atousa Janzadeh, **Behnaz Rahimi**, and Farinaz Nasirinezhad. "Platelet-rich plasma in umbilical cord blood reduces neuropathic pain in spinal cord injury by altering the expression of ATP receptors." *Physiology & Behavior* 228 (2021): 113186. <https://doi.org/10.1016/j.physbeh.2020.113186>
2. Saffarpour, Sepideh, Atousa Janzadeh, **Behnaz Rahimi**, Fatemeh Ramezani, and Farinaz Nasirinezhad. "Chronic nanocurcumin treatment ameliorates pain-related behavior, improves spatial memory, and reduces hippocampal levels of IL-1 $\beta$  and TNF $\alpha$  in the chronic constriction injury model of neuropathic pain." *Psychopharmacology* 238, no. 3 (2021): 877-886. <https://doi.org/10.1007/s00213-020-05739-x>
3. Jahandideh, Atefeh, Hamid Noori, **Behnaz Rahimi**, Michael R. Hamblin, Zahra Behroozi, Moazzameh Ramezani, and Fatemeh Ramezani. "Alginate scaffolds improve functional recovery after spinal cord injury." *European Journal of Trauma and Emergency Surgery* (2021): 1-11. <https://doi.org/10.1007/s00068-021-01760-7>
4. Behroozi, Zahra, **Behnaz Rahimi**, Keihan Kookli, Mohammad S. Safari, Michael R. Hamblin, Maryam Razmgir, Atousa Janzadeh, and Fatemeh Ramezani. "Distribution

- of gold nanoparticles into the brain: a systematic review and meta-analysis." *Nanotoxicology* (2021). <https://doi.org/10.1080/17435390.2021.1966116>
5. **Rahimi, Behnaz**, Abbas Aliaghaei, Fatemeh Ramezani, Zahra Behroozi, and Farinaz Nasirinezhad. "Sertoli cell transplantation attenuates microglial activation and inhibits TRPC6 expression in neuropathic pain induced by spinal cord injury." *Physiology & Behavior* 251 (2022): 113807. <https://doi.org/10.1016/j.physbeh.2022.113807>
  6. Kahuripour, Mahnaz, Zahra Behroozi, **Behnaz Rahimi**, Michael R. Hamblin, and Fatemeh Ramezani. "The potential of curcumin for treating spinal cord injury: a meta-analysis study." *Nutritional Neuroscience* (2022): 1-12. <https://doi.org/10.1080/1028415X.2022.2070703>
  7. Zahra Behroozi, **Behnaz Rahimi**, Michael R Hamblin, Farinaz Nasirinezhad, Atousa Janzadeh, Fatemeh Ramezani "Injection of Cerium Oxide Nanoparticles To Treat Spinal Cord Injury In Rats," accepted to: *Journal of Neuropathology & Experimental Neurology*. *Journal of Neuropathology & Experimental Neurology*, 81(8), pp.635-642. <https://doi.org/10.1093/jnen/nlac026>
  8. Saffarpour, Sepideh, Behnaz Rahimi, Atousa Janzadeh, Elnaz Hosseini, Pargol Sadeghi Tehran, and Farinaz Nasirinezhad. "The effects of chronic nanoselenium treatment on sciatic nerve injury: behavioral and biochemical responses." *Nutrire*47, no. 2 (2022): 1-8. <https://doi.org/10.21203/rs.3.rs-1755898/v1>

### ***Journal Papers in Review***

1. **Behnaz Rahimi**, Zahra Behroozi, Ali Motamed, Maral Jafarpour, Ali Moshiri, Atousa Janzadeh, Fatemeh Ramezani "Study of nerve cell regeneration on nanofibers containing cerium oxide nanoparticles in a spinal cord injury model in rats" Submitted to: *Neurotherapeutics*
2. Zahra Behroozi, **Behnaz Rahimi**, Ali Motamed, Maral Jafarpour, Ali Moshiri, Fatemeh Ramezani, Atousa Janzadeh, "Photobiomodulation therapy on the SC containing CeONPs helps control inflammation, pain, and synapse formation after Hemi section Spinal Cord Injury in Rats" Submitted to: *Nanotechnology*

### *Conference Papers*

Chromosomal member and its taxonomical significance of 4 species *Alyssum* in Iran Accepted as a **Poster presentation** in **The 2d National Conference on Stable Agriculture and Natural Resources** 2014, Mashhad, Iran.

Effect of Insulin deficiency on nucleus accumbens as a reward center: an electrophysiological study. Accepted as a **Poster Presentation** in **9<sup>th</sup> Congress of Addiction Biology** 2015, Tehran, Iran.

Effect of *Nigella sativa* extract on volume of middle cerebral artery occlusion induced ischemia in the male rats and the model to study stroke. Accepted as an **Oral Presentation** in **2<sup>nd</sup> International Iranian Stroke Congress** 2015, Shiraz, Iran.

The pain alleviating effect of Sertoli cell transplantation in a compression model of spinal cord injury. Accepted as an **Oral Presentation** in **8<sup>nd</sup> congress of Iranian Society of Neuroscience (BCNC)**, 2019, Tehran, Iran

### **WORKSHOP ORGANIZER**

1. Organizer Workshop on **Brain ischemia** at ischemia-reperfusion Laboratory of Physiology Department, Iran University of Medical Sciences for 4 hours, on 21st April 2017
2. Organizer Workshop on **Induction of spinal cord injury model** at the Center for experimental and comparative study and Physiology Research Center, Iran University of Medical Sciences, on 13th October 2019
3. Organizer Workshop on **Brain ischemia** at 24th Iranian & 3rd International congress of physiology & pharmacology, on 14th October, 2019
4. Organizer Workshop on **Theoretical and practical basics of immunohistochemistry technique** at the Center for experimental and comparative study and Radiation Biology Research Center, Iran University of Medical Sciences for 12 hours, on 12th November 2019

### **WORKSHOP ATTENDED**

1. Attended Workshop on **Familiarity with types of articles and preparation of scientific posters**, at Ferdowsi University of Mashhad for 4 hours, on 12th March 2011

2. Attended Workshop on **Getting to know the basics of teaching**, at Iran University of Medical Sciences for 12 hours, on 7th -8th February 2017
3. Attended Workshop on Empowering graduate students to include: **Systematic review and meta-analysis** for 8 hours, **Proposal writing** for 8 hours, and, **Paper writing** for 8 hours, at Iran University of Medical Sciences, on 15th -18th July 2017
4. Attended Workshop on **Gastric reflux surgery** at General Laboratory of Physiology Department, Iran University of Medical Sciences for 4 hours, on 13th May 2017
5. Attended Workshop on **Behavioral tests** at General Laboratory of Physiology Department, Iran University of Medical Sciences for 4 hours, on 5th May 2018
6. Attended Workshop on **Ethics in research** at Department of Physiology, Iran University of Medical Sciences for 3 hours, on 16th June 2019
7. Attended Workshop on **Statistics** at the Department of Physiology, Iran University of Medical Sciences for 24 hours, on 4th-11th May 2019