

# Parisa Sarkoohi

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Toxicology and Pharmacology Department of School of Pharmacy,  
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## Contact information

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## Current positions:

- Assistant professor in Hormozgan Faculty of Pharmacy and Pharmaceutical Sciences
- Vice Chancellor for Research at the molecular medicine research center of Hormozgan University of Medical Sciences (HUMS)

## Education

- **2012- 2019**  
**SCHOOL OF MEDICINE, SHIRAZ UNIVERSITY OF MEDICAL SCIENCES**
  - Ph.D., Pharmacology
- **1998-2005**  
**COLLEGE OF VETERINARY MEDICINE, UNIVERSITY OF SHIRAZ - SHIRAZ**
  - DVM, Veterinary medicine
- **1990-1997**  
**FARZANEGAN SCHOOL , SHIRAZ**  
(National Organization for Development of Exceptional Talents)
  - Diploma in Experimental Sciences

## Research interests

- Neural stem cell biology
- Regenerative medicine
- Neuropharmacology
- Cancer cell signaling pathways
- Marine pharmacology

## Experiences

### Teaching Experiences:

- **2021 up to now** - Teaching pharmacology courses for pharmacy, medicine, dentistry, nursing, midwifery students in Hormozgan University of Medical Sciences
- **2015-2019** - 102 hours Pharmacology teaching in Shiraz University of Medical Sciences which details are attached.
- **2014** - 34 hours Pharmacology teaching in Kazeroon Azad University
- **2008-2009** - 34 hours Epidemiology teaching in Shiraz Applied Science University.
- **2017-2018** - Teaching in two workshop of neural stem cell isolation and culture (Student Research Committee) and (Shiraz Institute of Stem Cell and Regeneration Medicine)

### Work as:

- **2006-2010** - Technical manager in Central Veterinary Pharmacy of Shiraz.
- **2004-2006** - Quality Control Manager at Food Industry Factories

## Publications

- 1- 2022: Effects of FTY720 on Neural Cell Behavior in Two and Three-Dimensional Culture and in Compression Spinal Cord Injury. Z Zeraatpisheh, F Shamsi, **P Sarkoohi**, S Torabi, H Alipour, H Aligholi. Cellular and Molecular Bioengineering, 1-10
- 2- 2021: Local delivery of fingolimod through PLGA nanoparticles and PuraMatrix-embedded neural precursor cells promote motor function recovery and tissue repair in spinal cord injury ,European Journal of Neuroscience 54 (4), 5620-5637.Z Zeraatpisheh, E Mirzaei, M Nami, H Alipour, M Mahdavi pour, **Parisa Sarkoohi**,...
- 3- 2020: Effects of Neural Stem Cell (NSC) Derived Extracellular Vesicles (EVs) on Neuronal Protection and Functional Recovery in the Rat Model of Middle Cerebral Artery Occlusion (MCAO), Cell Biochemistry & Function j. Marzieh Mahdavi pour, Gholamreza Hassanzadeh, Elham Seifali, Dr keywan mortezaee, hadi aligholi, Faezeh Shekari, **Parisa Sarkoohi**, zahra zeraatpisheh, Ms Abdoreza Nazari, Shabnam Movassaghi

- 4- 2019: Quercetin enhanced proliferation of neural stem/progenitor cells through Nrf2-proteasome pathway. *Physiol Pharmacol* 23 (2019). **Parisa Sarkoohi**, Hadi Aligholi, Atena Amiri, Marzieh Mahdavi-pour, Zahra Zeraatpisheh, Masoumeh Emamghoreishi
  
- 5- 2020: Antidepressant effects of the aqueous and hydroalcoholic extracts of *Salvia mirzayanii* and *Salvia macrosiphon* in male mice. *shiraz e med j*. April 2019. **Parisa Sarkoohi**, Mohammad Fathalipour, Fatemeh Ghasemi, Katayoun Javidnia , Masoumeh Emamghoreishi
  
- 6- 2019: Glycogen synthase kinase-3 $\beta$  may contribute to the neuroprotective effects of *Sargassum oligocystum* against beta-amyloid in the neuronal SHSY5Y cells. *Iranian Journal of Pharmacology and Therapeutics*. Mojtaba keshavarz, Atena Amiri, **Parisa Sarkoohi**
  
- 7- Regulation of adiponectin gene expression in adipose tissue by thyroid hormones. S Seifi, MR Tabandeh, S Nazifi, M Saeb, S Shirian, **P Sarkoohi**
  
- 8- 2012: Gene expression pattern of adiponectin and adiponectin receptors in dominant and nondominant follicles and oocytes screened for their developmental competence based on brilliant cresyl blue staining. *Animal Reproduction Science*. 2011. Tabandeh M., Golestani N., Kafi M., **Sarkoohi P.**
  
- 9- 2008: Assessment of risk factors of sub-clinical ketosis in three dairy farms. *January Journal of Veterinary Research*, 2008. Mohebbi-Fani M., Nazifi S., Moinizaheh H., **Sarkoohi P.**

#### Softwares Certificates and skills

- 1- Advanced SPSS. Shiraz University of Medical Sciences. August 20-25, 2016.
- 2- Preliminary SPSS. Shiraz University of Medical Sciences. August 20-25, 2016.
- 3- Prism( graphpad). Research Consultation Center (RCC). Shiraz University of Medical Sciences. 2018
- 4- Endnote x7. Research Consultation Center (RCC). Shiraz University of Medical Sciences. 18 January, 2017.

- 5- Sigmaplot. Student Research Committee. December 16, 2015.
- 6- Photoshop. Pharmacology Department, Shiraz University of Medical Sciences.
- 7- Fiji package/image J software
  - Western blotting analysis
  - Colour intensity measurement
- 8- Infinity Analyze software
  - Counting and size measurement of cells

Course/certification
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- 1- 9<sup>th</sup> ROYAN International Summer School: Methods to study the brain in health and disease. Tehran, Iran. July, 14-18, 2018
- 2- Neural Stem cell Isolation and Culture, Shiraz Institute of Stem Cell and Regenerative Medicine, February, 22, 2018. (Participate as a Workshop Tutor)
- 3- The 7<sup>th</sup> ROYAN International Summer School: Interdisciplinary science for tomorrow's medicine. Royan institute, Tehran, Iran. July, 23-28, 2016
- 4- Human pluripotent stem cell culture and maintenance. Royan institute, Tehran, Iran. August, 1, 2016.
- 5- Tissue engineering. Royan institute, Tehran, Iran. July, 31, 2016.
- 6- Virus production with the goal of genetic manipulating and producing ips. Royan institute, Tehran, Iran. July, 29, 2016.
- 7- Tow Day Brain Mapping Skills Training and seminar. NBML, Tehran, IRAN. August, 9-10, 2017.
- 8- SDS-PAGE and Western blotting. Shiraz University of Medical Science, Shiraz, Iran. August, 20-25, 2016.
- 9- In vitro manipulation of adult stem cells. Shiraz Institute for Cancer Research(ICR). Shiraz University of Medical Science, Iran. October, 28, 2012.
- 10- Principles of primer design for PCR reaction at 5<sup>th</sup> postgraduate Summer School of Shiraz University of Medical Science. August, 20-25, 2016.
- 11- Principles of primer design for PCR Reaction, "Fars Province, Jahad danneshgahi". January, 28, 2014.
- 12- Principles of Eukaryote Cell Culture, at 5<sup>th</sup> postgraduate Summer School of Shiraz University of Medical Science. Shiraz, Iran. August, 20-25, 2016
- 13- Flowcytometry, at 5<sup>th</sup> postgraduate Summer School of Shiraz University of Medical Science. August, 20-25, 2016.
- 14- Advanced Scientific Writing. Reasearch Consulation Center (RCC). Shiraz University of Medical Science. January 2-3, 2017.
- 15- Flourescent Microscopy; Steven Fisher (technical manager of BioTek Company) and central reaserch laboratory, Shiraz University of Medical Sciences. April, 25, 2018.
- 16- Transcranial Direct Current Stimulation (tDCS). Department of Neuroscience and Paarand Center. July,19, 2017.
- 17- Diabetes, Causes and Prevention, Nutrition in Diabetes and Medicinal Plants Affecting Diabetes. Shahid Chamran University of Ahvaz, 2010.

- 18- Cancer: Causes, Diagnosis of Treatment and Prevention, Shahid Chamran University of Ahvaz, 2011.
- 19- Design Of Experiments techniques (DOE).Fars Province Industrial and Scientific Services Co.2005
- 20- The system of dressing and organizing the work environment (5s). Fars Province Industrial and Scientific Services Co.2005
- 21- Workshop on safety and protection in biomedical research laboratories.2012.

#### Congresses and seminars's abstracts

- 1- Quercetin enhanced proliferation of neural stem/progenitor cells through Nrf2- proteasome pathway. Abstract has been accepted for poster presentation at **the 2019 Till & McCulloch Meetings' (TMM2019). ( Canada's stem cell research event).**
- 2- THE EFFECT OF QUERCETIN ON PROLIFERATION, PROTEASOME ACTIVITY AND NRF2 PROTEIN LEVELS IN EMBRYONIC NEURAL STEM/PROGENITOR CELLS OF RAT. **ISSCR 2018 , Annual meeting, Melbourne, Australia, 20-23 june**
- 3- Preparation of a medication manual for patient with HIV: As a pharmaceutical service. 23rd Iranian Pharmacy Students Seminar (IPSS23) November 16 – 19, 2021 Mashhad, Iran
- 4- Invaluable Role of Pharmacists in Controlling Hypertension: A Medication Preparation Pamphlet. 23rd Iranian Pharmacy Students Seminar (IPSS23) November 16 – 19, 2021 Mashhad, Iran
- 5- Insecticidal potency of bacillus thurengiensis Cry protein enhanced by its conjugation to poly (ethylene glycol)-thiol gold nanoparticle. **First asian congress of biotechnology. Shanghai, China. 2011.**
- 6- Paratesticular metastatic sarcomatoid renal cell carcinoma in spindel cell tumors of testis and literature review.**36<sup>th</sup> European congress of cytology.2011**
- 7- Novel gene expression pattern of adiponectin and adiponectin receptors in dominant and nondominant follicles and oocytes screened for their developmental competence based on brilliant cresyl blue staining. **12<sup>th</sup> congress of biochemistry and 4th international congress of molecular biology. Mashhad, Iran. 2011.**

- 8- Interaction of adiponectin and its receptors gene expression in dipose tissue with thyroid hormones in experimental hypo and hyperthyroidism in rat. **12th congress of biochemistry and 4<sup>th</sup> international congress of molecular biology. Mashhad, Iran. 2011.**
- 9- The study of antibacterial potency of lysozyme after its conjugation to gold nanoparticle. **Second national congress of applied microbiology. Tehran. 2011.**
- 10- The effect of gold nanoparticles on the apoptosis and steroid hormone production of cultured granulosa cells. **First nanodrug congress. Ahvaz. 2011.**
- 11- Gold nanoparticle enhances peroxyntirite and 3-morpholinosydnomine induced pET28a (+) plasmid DNA damage in vitro. **First nanodrug congress. Ahvaz. 2011**
- 12- Investigation of heavy metal levels in fishes and crustaceans in markets, captured from the Persian golf. The **9<sup>th</sup> Iranian Congress of Toxicology.15-17 may, 2007. Shiraz,Iran.**
- 13- Study of anti bacterial effect of pistacia atlantica subspecies mutica. **4<sup>th</sup> convention of Iranian veterinary clinicians. Urmia, 2005**
- 14- **Assessment of risk factors of sub-clinical ketosis in three dairy farms. 4<sup>th</sup> convention of Iranian veterinary clinicians. Urmia, 2005**

#### Research Projects

- 1- Research project approved by the Academy of Sciences(“*Farhangestene oloom*”); Assessment of studies on food contamination with pathogenic bacteria in Iran.2011-2012
- 2- The effect of pomegranate phenolic compounds on inhibition of polyphenol oxidase enzyme and qualitative changes in shrimp. Shiraz University, Faculty of Veterinary Medicine, 2012.
- 3- Evaluation of Nootropic Effect of Hydroalcoholic Extract of Musa Sapientum fruit in Scopolamine-induced Memory Deficit Rats. Shiraz University of Medical Sciences. Pharmacology Department.2014-2015

Ongoing projects:

- 4- The effect of hydroalcoholic extract of *Spirulina platinensis* on VEGFR2 gene expression in SH-SY5Y Cells
- 5- The effect of ethanolic extract of *Sargassum Boveanum* on VEGFR2 gene expression in SH-SY5Y cell
- 6- Preparation of a medication manual for patient with HIV, Alzheimer, Hypertension and Epilepsy

- 7- Immunoinformatics design of recombinant vaccine based on TVAG, AP33 and  $\alpha$ -actinin proteins against *trichomonas vaginalis*
- 8- Design of a multi-epitope vaccine candidate based on OmpA, CarO and ZnuD proteins against multidrug-resistant *Acinetobacter baumannii*

#### Skills

##### Molecular and cellular biology

- ✓ -Cell culture specially "Adult and Embryonic neural **stem cell**" culture
- ✓ -Launch and set up the Culture Room
- ✓ -Immunocytochemistry
- ✓ -Western blotting
- ✓ -PCR Reactions

##### Intracellular signaling pathways

##### Data analysis

##### Image processing and analysis

##### Power of confrontation and solving the challenges

##### Scientific writing

##### Well power of expressing

##### language skills

- ✓ Persian
- ✓ English
- ✓ French

#### Other

- One year in membership of the "**International Society for Stem Cell Research (ISSCR)**".**2018-2019** : Nonprofit organization established to promote excellence in stem cell science and applications to human health.
- Holding an event called "**Technological Ideas Hackathon**" as the best way to generate technological ideas for the production of marine pharmaceutical products, which led to the presentation of 13 product-oriented technological proposals that are supposed to produce laboratory samples of their products from the Research Vice-Chancellor of the University of Sciences Hormozgan Medical Center to receive grants.

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