

Dr. Zeinab Hormozi-Moghaddam

Email Hormozimoghadam.z@iums.ac.ir
z.hormozi@modares.ac.ir
Zhormozi69@gmail.com

Research interest

Radiobiology

Radiotherapy

Breast cancer

Ultrasound (physics, interactions)

The effect of non-ionizing and ionizing radiation on cell and tissue

The change of tissue characterization by ionization and non-ionization radiations

Regenerative medicine by radiation

Education

2014-2020

Ph.D. student in medical physics
University of Tarbiat Modares

Thesis title Low-intensity ultrasound combined with allogenic adipose-derived mesenchymal stem cells (AdMSCs) in radiation-induced skin injury treatment.

- Researcher of radiotherapy department of Shohadaye Tajrish hospital, Shahid Beheshti University, Tehran, Iran.
- Researcher of skin and stem cell research center, Tehran University, Tehran, Iran.

2012-2014

Msc student in Medical physics
University of Tarbiat Modares

Thesis title Investigating the effect of mechanical index parameter from irradiation of low intensity ultrasound on proliferation of spermatogonial stem cells isolated from neonate mouse testis

Although stem cells have high proliferation and differentiation ability, but the proliferation abundance is limited in vitro. Proliferation and enrichment of spermatogonia stem cells in culture medium provide a valuable source of germ cells for freezing, transplantation, infertility treatment, genetic manipulation and differentiation in vitro. Therefore, some techniques are required for increasing the number of these cells in vitro. In this study, the effect of mechanical index (MI) is desired to understand the physical process influencing on stem cells proliferation.

2008-2012

Bsc student in Radiological Technology
Kermanshah University of Medical Science

Publications

- **Hormozi-Moghaddam Z, Manijhe Mokhtari-Dizaji, Mohammad-Ali Nilforoshzadeh, Mohsen Bakhshandeh.** Low-intensity ultrasound to induce proliferation and collagen I expression of adipose-derived mesenchymal stem cells and fibroblast cells in co-culture. Measurement, 2021; 108280. (IF: 3.364)

<https://doi.org/10.1016/j.measurement.2020.108280>

- **Hormozi-Moghaddam Z, Manijhe Mokhtari-Dizaji, Mohammad-Ali Nilforoshzadeh, Mohsen Bakhshandeh.** Low-intensity ultrasound combined with allogenic adipose-derived mesenchymal stem cells (AdMSCs) in radiation-induced skin injury treatment. Scientific reports, 2020; 10: 1-19.. (IF: 4.57)

- **Hormozi-Moghaddam Z, Mokhtari-Dizaji M, Movahedin.** Effect of acoustic cavitation on mouse spermatogonial stem cells: colonization and viability. Journal of ultrasound in medicine 2020; 9999: 1-12. (IF: 1.79).

<https://doi.org/10.1002/jum.15476>

- **Hormozi-Moghaddam Z, Mokhtari-Dizaji M, Movahedin, Mohammad Ehsan Ravari.** Estimate of the distribution of low-intensity ultrasound mechanical index as a parameter affecting of the ability of proliferation and differentiation of stem cells in vitro. Ultrasonics Sonochemistry 2017; 37: 571- 581. (IF: 7. 20)

[http:// 10.1016/j.ultsonch.2017.02.013](http://10.1016/j.ultsonch.2017.02.013)

- **Hormozi-Moghaddam Z, Mokhtari-Dizaji M, Movahedin M, M. E. Ravari.** Ultrasound Mechanical Index as a Parameter Affecting of the Ability of Proliferation of Cells. World Academy of Science, Engineering and Technology, International Journal of Medical and Health Sciences 2017;11: 190- 193.

[http:// doi.org/10.5281/zenodo.1132004](http://doi.org/10.5281/zenodo.1132004)

- Tohidniya MR, Amiri F, Khoshgard K, **Hormozi-Moghadam Z**. Evaluation of the Observance of Radiation Protection Principles in Intensive Care Units at Imam Reza Hospital of Kermanshah. *payavard*. 2017; 10: 470-478.
- **Hormozi-Moghaddam Z**, Mokhtari-Dizaji M, Movahedin M, M. E. Ravari. Estimation of medical index distribution of low intensity ultrasound waves in cell studies. *Journal of Acoustical Engineering Society of Iran* 2017; 5:1.
- **Hormozi-Moghaddam Z**, Sadeghi SH, Teimouri B, Hashemian AH. Students satisfaction of educational facilities and services in faculty of paramedics at Kermanshah university of medical sciences in 2011-2012. *Edu R Med S* 2013; 2: 29-31 .
- Amiri F, **Hormozi-Moghaddam Z**, Dehlaghi V, Tohidnia MR, Hashemian AH. Evaluation of diagnostic radiology standards in the hospitals of Kermanshah university of medical sciences in 2009. *Journal of Faculty of Paramedical of Kermanshah university* 2010.
- Tohidnia MR, Dezfolimanesh ZH, Amiri F, **Hormozi-Moghaddam Z**. Observance of the radiation protection measures by radiological technologist in radiology departments in hospitals of Kermanshah University of Medical Sciences, *Journal of Faculty of Paramedical of Kermanshah university* 2010.

Research Projects

- Investigating the synergistic efficacy of radiotherapy and sonodynamic therapy in the presence of apigenin-coated gold nanoparticle and methylene blue sonosensitizer on MCF7 cell line. 2021.
- Low-intensity ultrasound combined with allogenic adipose-derived mesenchymal stem cells (AdMSCs) in radiation-induced skin injury treatment. 2020.
- Investigating the effect of mechanical index parameter from irradiation of low intensity ultrasound on proliferation of spermatogonial stem cells isolated from neonate mouse testis. 2013.
- Students satisfaction of educational facilities and services in faculty of paramedics at Kermanshah university of medical sciences 2011.
- To evaluate Diagnostic Radiology standards in the hospitals of Kermanshah University of Medical Sciences. 2011.
- Evaluation of medical students knowledge about medical imaging exams in Kermanshah University of Medical Sciences 2011.
- Evaluation of lumbar magnetic resonance imaging in patients referred to Hospital MRI of Imam Reza (AS) 2011.
- A study of knowledge of nurses in hospital intensive care unit of a portable radiographic Kermanshah University of Medical Sciences.2011.
- Evaluation of satisfaction of visitors to the CT scan imaging Imam Reza (AS) Kermanshah.2011.
- Assessment of the depression in patients referred to the Hospital radiotherapy department of Imam Reza (AS) Kermanshah,2011.
- Observance of the radiation protection measures by radiological technologist in radiology departments in hospitals of Kermanshah University of Medical Sciences.,Journal of Faculty of Paramedical of Kermanshah university;2010.

Conferences

Oral

- **Hormozi_Moghaddam Z**, Mokhtari-Dizaji Manijeh, Nilforoshzade Mohammad-Ali, Bakhshandeh Mohsen. Effect of Adipose_Derived Mesenchymal Stem Cells on Healing of Skin Radiation-Induced Injury in Guinea pig Model. 3rd International and 5th National Congress of Wound Healing and Tissue Repair, Tehran 2018.
- **Hormozi-Moghaddam Z**, Mokhtari-Dizaji M, Movahedin M, M. E. Ravari. Ultrasound Mechanical Index as a Parameter Affecting of the Ability of Proliferation of Cells. Paris France, 2017.
- **Hormozi-Moghaddam Z**, Mokhtari-Dizaji M, Movahedin M . Effect of acoustic cavitation on colonization and viability of mouse spermatogonial stem cells. 25th annual scientific meeting, Beirut, Lebanon 2018.
- **Hormozi-Moghaddam Z**. The efficiency of ESWL in the treatment of kidney stones. the Sixth National Congress of Students of Paramedical Sciences, Tehran 2011.

Poster

- **Hormozi_Moghaddam Z**, Mokhtari-Dizaji Manijeh, Nilforoshzade Mohammad-Ali, Bakhshandeh Mohsen. Effect of Adipose_Derived Mesenchymal Stem Cells on Healing of Skin Radiation-Induced Injury in Guinea pig Model. 3rd International and 5th National Congress of Wound Healing and Tissue Repair, Tehran 2018.
- **Hormozi-Moghaddam Z**, Mokhtari-Dizaji M, Movahedin M . Effect of acoustic cavitation on colonization and viability of mouse spermatogonial stem cells. 25th annual scientific meeting, Beirut, Lebanon 2018.
- **Hormozi Moghaddam Z**, Mokhtari-Dizaji Manijeh, Nilforoshzade Mohammad-Ali, Bakhshandeh Mohsen .Effect of Adipose_Derived Mesenchymal Stem Cells on Healing of Skin Radiation-Induced Injury in Guinea pig Model. 3rd International and 5th National Congress of Wound Healing and Tissue Repair, Tehran 2018.

- **Hormozi-Moghaddam Z**, Mokhtari-Dizaji M, Movahedin M, M. E. Ravari. Ultrasound Mechanical Index as a Parameter Affecting of the Ability of Proliferation of Cells. Paris France, 2017.
- **Hormozi-Moghaddam Z**. Ultrasound mechanical index as a parameter affecting the proliferation spermatogina stem cells. The 2nd national festival and international congress on stem cell and regenerative medicine. Tehran, Iran 2017.
- **Hormozi-Moghaddam Z**. Low intensity ultrasound mechanical index as a parameter affecting of ability of proliferation and collagene type 1 expression of cells. 12th Iranian congress of medical physics. Tehran, iran, 2018.
- **Hormoziz Moghaddam Z**. The effect of low intensity ultrasound on mesenchymal stem cell, 9th Royan international congress on stem cell biology and technology, Tehran, Iran, 2013.
- **Hormozi-Moghaddam Z**. The effect of 40 kHz low intensity ultrasound on proliferation of spermatogonial stem cells isolated from neonate mouse testis. The 2nd international congress on reproduction ISERB, Iran 2016.
- **Hormozi-Moghaddam Z**. mobile radiography with remote control,12th World Congress on Medical Physics and Biomedical Engineering in Beijing, China 2012.
- **Hormoziz Moghaddam Z**. safety three dimensional ultrasound in pregnancy, the 10th international congress on obstetrics and gynecologyt, Tehran 2013.
- **Hormozi-Moghaddam Z**. Observance of the radiation protection measures by radiological technologist in radiology departments in hospital of Imam Reza (AS), Kermanshah University of Medical Sciences in. the Fifth National Congress of Students of Paramedical Sciences, Tehran, Iran 2010.

- **Hormozi-Moghaddam Z.** Survey of three-dimensional sonography and conventional methods in pregnancy. the fifth National Congress of Students of Paramedical Sciences, Tehran, Iran 2010.
- **Hormozi-Moghaddam Z.** Observance of the radiation protection measures by radiological technologist in radiology departments in hospitals of Kermanshah University of Medical Sciences.,Journal of Faculty of Paramedical of Kermanshah university;2010.The first student festival of radiation. Shiraz, Iran 2010.
- **Hormozi-Moghaddam Z.** Digital and conventional radiography: advantages and disadvantages, fifth National Congress of Students of Paramedical Sciences, Tehran, Iran 2010.
- **Hormozi-Moghaddam Z.** Evaluation of diagnostic radiology standards in the hospitals of Kermanshah university of medical sciences. Second national conference of standard, development and health, Kermanshah, Iran 2010.
- **Hormozi-Moghaddam Z.** Survey of knowledge of medical students about medical imaging procedure in Kermanshah University of Medical Sciences in 2010, 1st MEFOMP International Conference of Medical Physics that will be held in Shiraz, Iran 2011.
- **Hormozi-Moghaddam Z.** Strategies of radiation reduction in neonatal intensive care units (NICU). Congress of Intensive Care. Kermanshah, Iran 2011.
- **Hormozi-Moghaddam Z.** Principles of radiation protection in intensive care units in Imam Reza (AS) hospitalin Kermanshah. Congress of Intensive Care. Kermanshah, Iran 2011.

- **Hormozi-Moghaddam Z.** Compare of diagnostic features and value of sonography and CT scan to evaluate blunt abdominal trauma in patients in intensive care. critical care congress. Kermanshah, Iran 2011.
- **Hormozi-Moghaddam Z.** Risks and protection of patients against ionizing radiation in the Intensive Care Unit, Critical Care Congress, Kermanshah, Iran 2011.
- **Hormozi-Moghaddam Z.** A study of knowledge of nurses in hospital intensive care unit of a portable radiographic in Imam Reza (AS) hospital, Kermanshah University of Medical Sciences, Congress of Intensive Care, Kermanshah, Iran 2011.
- **Hormozi-Moghaddam Z.** Sonography and mammography in the diagnosis of breast cancer, the sixth National Congress of Students of Paramedical Sciences, Tehran, Iran 2011.
- **Hormozi-Moghaddam Z.** Oral contrast agents in magnetic resonance imaging of the biliary system (MRCP), the Sixth National Congress of Students of Paramedical Sciences, Tehran, Iran 2011.
- **Hormozi-Moghaddam Z.** Brain MRI findings in patients in Medical Center of Imam Reza (AS) Kermanshah. the fourth congress of the Radiological Society of Oral and Maxillofacial Iran, Esfahan, Iran 2011.
- **Hormozi-Moghaddam Z.** Random prevalence of sinusitis patients in hospital with brain MRI order of Imam Reza (AS) Kermanshah in 1390, the fourth congress of the Radiological Society of Oral and Maxillofacial Iran, Tehran, Iran 2012.
- **Hormozi-Moghaddam Z.** Protection against ionizing radiation in X-ray examination of the mouth, the fourth congress of the Radiological Society of Oral and Maxillofacial Iran, Tehran, Iran 2012.

- **Hormozi-Moghaddam Z.** Comparison of three-dimensional cone beam tomography (CBCT) and conventional computed tomography (CT) in diagnosing paranasal sinus diseases, The 4th congress Iranian Association of Oral and Maxillofacial Radiology , Iran 2012 .
- **Hormozi-Moghaddam Z.** The effect of omega 3 in the relief of the pain of rheumatoid arthritis, the Sixth National Congress of Students of Paramedical Sciences, Tehran, Iran 2012.
- **Hormozi-Moghaddam Z.** Evaluation of knowledge of medical students of medical imaging and protection Kermanshah University of Medical Sciences in 1389, the first annual conference of medical students Kermanshah, Iran 2012 .
- **Hormozi-Moghaddam Z.** Acute stroke imaging methods, the first annual conference of students of Medical Sciences, Kermanshah, Iran 2011.

Member ships

1. Member of the scientific committee of the annual conference of medical students Kermanshah in 2011
2. An active member of the Student Research Committee
3. The Head of Student Research Committee, School of Kermanshah University of Medical Sciences
4. The Expert of projects of students research
5. Cooperation in providing training workshops and research in Student Research Committee
6. The rescuer of Red Crescent in Tehran
7. Member of the central council of Red Crescent Association of Tarbiat Modarres University