

## **Masoud Najafi**

Assistant Professor of Medical Physics

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### **Education:**

2005-2007: Ahvaz Jundishapur University of Medical Sciences, Ahvaz, IR Iran

2008-2013: Shiraz University of Medical Sciences, Shiraz, IR Iran

2013-2019: Tehran University of Medical Sciences, Tehran, IR Iran

### **Scientific Positions:**

Assistant Professor of Medical Physics, Radiology and Nuclear Department; Kermanshah University of Medical Sciences, Kermanshah, Iran

Medical Technology Research Center, Kermanshah University of Medical Sciences, Kermanshah, Iran

Assistant Editorial Board of Current Radiopharmaceutical

Editorial Board of Current Drug Research Reviews

### **Projects**

1. Evaluating effect of the protective effect of metformin on reducing the lungs pathological damage and fibrosis induced by a high dose of radiation in male rats
2. Evaluation of Protective Effect of Resveratrol and Alpha-Lipoic Acid on Histopathological Damage in the Mice Lung after a High Dose of X-Ray in Mice
3. Assessment of Effect of Celecoxib on Histopathological Damages and Fibrosis in the Male Rat's Heart after Exposure to A High Dose of Radiation
4. Investigating the Protective effect of resveratrol on alpha lipoic acid on acute radiation damage
5. Evaluating of the synergic effect of the radiation mitigatory and protection of metformin on acute radiation injury in the hematopoietic and gastrointestinal systems in syrian mice exposed to 6 megavoltage x-ray
6. The effect of nanocurcumin on animal model irradiated by 6-MV photon beam as a radio-mitigator of acute radiation damage on hematopoietic and digestive systems
7. Review on the importance of natural radiation modifiers in radiation protection
8. Assessment of effect of Nano-curcumin on radiotherapy-induced skin reaction in breast cancer patients

9. Evaluating the effect of resveratrol, suberosin and imperatorin in combination with radiotherapy and hyperthermia on the expression of Bax, Bcl-2, Caspase3, Caspase8, Caspase9, and cell survival in MCF-7 cells
10. Effects of Cerebrolysin and Resveratrol on oxidative stress and apoptosis induced by brain radiotherapy in rat
11. Evaluating the administration of resveratrol, alpha lipoic acid, flaxseed and metformin on histopathological changes after exposure to whole body irradiation in mice
12. Evaluation of effect of melatonin on the expression of DUOX1 and DUOX2 genes and fibrosis induced by acute ionizing radiation in the rat's lung and heart
13. Investigating the radioprotective effects of melatonin and metformin combination on pathological damages of ileum and colon tissues in male rats
14. Comparing the protective effect of natural antioxidant compounds, including resveratrol, flaxseed, Coenzyme Q10 and  $\alpha$ -lipoic acid on spermatogenesis damage after radiation in mice
15. The protective effect of glucosamine against genotoxicity induced by cisplatin in rat bone marrow cells
16. Evaluating Antioxidant and anti-apoptotic effects of nano-selenium and probiotic on Mice testis after x-ray
17. Evaluation of protective effect of natural antioxidants on radiation-induced oxidative stress and morphological changes in the lung, heart and intestine
18. Evaluation of selenium L methionine and curcumin effects on lung fibrosis induced by exposure to ionizing radiation in rats
19. Evaluation of protective effect of curcumin, resveratrol and alpha-lipoic acid on radiation-induced kidney and liver injury in mice
20. Evaluation of protective effect of metformin on radiation-induced histopathological changes and DUOX1 و DUOX2 genes expression in the heart mice after exposure to a high dose of radiation
21. Evaluation the effect of Resveratrol and Alpha-lipoic acid on radiation-induced histopathological damages and fibrosis in the mice heart tissue after exposure to a high dose of radiation

## **Books**

Radiation Biology; Shiraz University of Medical Sciences

## Verified reviews

### REVIEWER SUMMARY

For manuscripts reviewed from date range January 2010 - June 2021

(8) Phytotherapy Research	WOS	(7) International Journal of Radiation Biolo...	WOS
(3) Journal of Cellular Physiology	WOS	(2) Cell Proliferation	WOS
(2) The Eurasian Journal of Medicine	WOS	(2) Journal of International Medical Resear...	WOS
(1) Biotechnology and Applied Biochemistry	WOS	(1) Genetics and Molecular Biology	WOS
(1) Journal of Cellular and Molecular Medic...	WOS	(1) Science Progress	WOS
(1) Clinical and Experimental Pharmacolog...	WOS	(1) Environmental Toxicology	WOS

**30 REVIEWS OF 22 MANUSCRIPTS**

### Journal Publications

- [1] Abadi AJ, Zarrabi A, Hashemi F, Zabolian A, Najafi M, Entezari M, Hushmandi K, Aref AR, Khan H, Makvandi P, Ashrafizaveh S, Farkhondeh T, Ashrafizadeh M, Samarghandian S, Hamblin MR. The role of SOX family transcription factors in gastric cancer. *International Journal of Biological Macromolecules*, 2021; 180: 608-624.
- [2] Abadi SHMH, Shirazi A, Alizadeh AM, Changizi V, Najafi M, Khalighfard S, Nosrati H. The effect of melatonin on superoxide dismutase and glutathione peroxidase activity, and malondialdehyde levels in the targeted and the non-targeted lung and heart tissues after irradiation in xenograft mice colon cancer. *Current Molecular Pharmacology*, 2018; 11: 326-335.
- [3] Abdi Goushbolagh N, Abedi Firouzjah R, Ebrahimnejad Gorji K, Khosravanipour M, Moradi S, Banaei A, Astani A, Najafi M, Zare MH, Farhood B. Estimation of radiation dose-reduction factor for cerium oxide nanoparticles in MRC-5 human lung fibroblastic cells and MCF-7 breast-cancer cells. *Artificial Cells, Nanomedicine and Biotechnology*, 2018; 46: S1215-S1225.
- [4] Ahmadi A, Najafi M, Farhood B, Mortezaee K. Transforming growth factor- $\beta$  signaling: Tumorigenesis and targeting for cancer therapy. *Journal of Cellular Physiology*, 2019; 234: 12173-12187.
- [5] Aliasgharzadeh A, Farhood B, Amini P, Saffar H, Motevaseli E, Rezapoor S, Nouruzi F, Shabeeb D, Musa AE, Mohseni M, Moradi H, Najafi M. Melatonin Attenuates Upregulation of Duox1 and Duox2 and Protects against Lung Injury following Chest Irradiation in Rats. *Cell Journal*, 2019; 21: 236-242.
- [6] Aliasgharzadeh A, Mohseni M, Salimian M, Farhood B, Najafi M, Safari H, Moradi H. Cumulative effective dose caused by diagnostic imaging and its associated risk for cancer development in trauma patients referred to the emergency department. *Journal of Medical Sciences (Taiwan)*, 2020; 40: 51-58.
- [7] Amini P, Ashrafizadeh M, Motevaseli E, Najafi M, Shirazi A. Mitigation of radiation-induced hematopoietic system injury by melatonin. *Environmental Toxicology*, 2020; 35: 815-821.

- [8] Amini P, Kolivand S, Saffar H, Rezapoor S, Motevaseli E, Najafi M, Nouruzi F, Shabeeb D, Musa AE. Protective effect of selenium-L-methionine on radiation-induced acute pneumonitis and lung fibrosis in rat. *Current Clinical Pharmacology*, 2019; 14: 157-164.
- [9] Amini P, Mirtavoos M, Motevaseli E, Shabeeb D, Musa AE, Cheki M, Farhood B, Yahyapour R, Shirazi A, Goushbolagh NA, Najafi M. Mechanisms for radioprotection by melatonin; can it be used as a radiation countermeasure? *Current Molecular Pharmacology*, 2019; 12: 2-11.
- [10] Amini P, Rezapoor S, Shabeeb D, Musa AE, Najafi M, Motevaseli E. Evaluating the protective effect of a combination of curcumin and selenium-L-methionine on radiation induced dual oxidase upregulation. *Pharmaceutical Sciences*, 2018; 24: 340-345.
- [11] Amini P, Saffar H, Nourani MR, Motevaseli E, Najafi M, Taheri RA, Qazvini A. Curcumin mitigates radiation-induced lung pneumonitis and fibrosis in rats. *International Journal of Molecular and Cellular Medicine*, 2018; 7: 212-219.
- [12] Ariyafar T, Mahdavi SR, Geraily G, Fadavi P, Farhood B, Najafi M, Ashouri A, Khalafi L, Shirazi A. Evaluating the effectiveness of combined radiotherapy and hyperthermia for the treatment response of patients with painful bony metastases: A phase 2 clinical trial. *Journal of Thermal Biology*, 2019; 84: 129-135.
- [13] Ashrafizadeh M, Ang HL, Moghadam ER, Mohammadi S, Zarrin V, Hushmandi K, Samarghandian S, Zarrabi A, Najafi M, Mohammadinejad R, Kumar AP. MicroRNAs and their influence on the zeb family: Mechanistic aspects and therapeutic applications in cancer therapy. *Biomolecules*, 2020; 10: 1-45.
- [14] Ashrafizadeh M, Farhood B, Elejo Musa A, Taeb S, Najafi M. The interactions and communications in tumor resistance to radiotherapy: Therapy perspectives. *International Immunopharmacology*, 2020; 87.
- [15] Ashrafizadeh M, Farhood B, Elejo Musa A, Taeb S, Najafi M. Damage-associated molecular patterns in tumor radiotherapy. *International Immunopharmacology*, 2020; 86.
- [16] Ashrafizadeh M, Farhood B, Elejo Musa A, Taeb S, Rezaeyan A, Najafi M. Abscopal effect in radioimmunotherapy. *International Immunopharmacology*, 2020; 85.
- [17] Ashrafizadeh M, Gholami MH, Mirzaei S, Zabolian A, Haddadi A, Farahani MV, Kashani SH, Hushmandi K, Najafi M, Zarrabi A, Ahn KS, Khan H. Dual relationship between long non-coding RNAs and STAT3 signaling in different cancers: New insight to proliferation and metastasis. *Life Sciences*, 2021; 270.
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- [19] Ashrafizadeh M, Hushmandi K, Moghadam ER, Zarrin V, Kashani SH, Bokaie S, Najafi M, Tavakol S, Mohammadinejad R, Nabavi N, Hsieh CL, Zarepour A, Zare EN, Zarrabi A, Makvandi P. Progress in delivery of siRNA-based therapeutics employing nano-vehicles for treatment of prostate cancer. *Bioengineering*, 2020; 7: 1-40.
- [20] Ashrafizadeh M, Najafi M, Ang HL, Moghadam ER, Mahabady MK, Zabolian A, Jafaripour L, Bejandi AK, Hushmandi K, Saleki H, Zarrabi A, Kumar AP. PTEN, a barrier for proliferation and metastasis of gastric cancer cells: From molecular pathways to targeting and regulation. *Biomedicines*, 2020; 8.
- [21] Ashrafizadeh M, Najafi M, Kavyiani N, Mohammadinejad R, Farkhondeh T, Samarghandian S. Anti-Inflammatory Activity of Melatonin: a Focus on the Role of NLRP3 Inflammasome. *Inflammation*, 2021.
- [22] Ashrafizadeh M, Najafi M, Makvandi P, Zarrabi A, Farkhondeh T, Samarghandian S. Versatile role of curcumin and its derivatives in lung cancer therapy. *Journal of Cellular Physiology*, 2020; 235: 9241-9268.
- [23] Ashrafizadeh M, Najafi M, Mohammadinejad R, Farkhondeh T, Samarghandian S. Flaming the fight against cancer cells: The role of microRNA-93. *Cancer Cell International*, 2020; 20.

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- [25] Ashrafizadeh M, Najafi M, Orouei S, Zabolian A, Saleki H, Azami N, Sharifi N, Hushmandi K, Zarrabi A, Ahn KS. Resveratrol modulates transforming growth factor-beta (TGF- $\beta$ ) signaling pathway for disease therapy: A new insight into its pharmacological activities. *Biomedicines*, 2020; 8.
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- [30] Ashrafizadeh M, Zarrabi A, Hushmandi K, Hashemi F, Hashemi F, Samarghandian S, Najafi M. MicroRNAs in cancer therapy: Their involvement in oxaliplatin sensitivity/resistance of cancer cells with a focus on colorectal cancer. *Life Sciences*, 2020; 256.
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- [33] Ashrafizadeh M, Zarrabi A, Hushmandi K, Zarrin V, Moghadam ER, Hashemi F, Makvandi P, Samarghandian S, Khan H, Hashemi F, Najafi M, Mirzaei H. Toward Regulatory Effects of Curcumin on Transforming Growth Factor-Beta Across Different Diseases: A Review. *Frontiers in Pharmacology*, 2020; 11.
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- [36] Ashrafizadeh M, Zarrabi A, Orouei S, Kiavash H, Hakimi A, Amirhossein Z, Daneshi S, Samarghandian S, Baradaran B, Najafi M. MicroRNA-mediated autophagy regulation in cancer therapy: The role in chemoresistance/chemosensitivity. *European Journal of Pharmacology*, 2021; 892.
- [37] Ashrafizadeh M, Zarrabi A, Orouei S, Saberifar S, Salami S, Hushmandi K, Najafi M. Recent advances and future directions in anti-tumor activity of cryptotanshinone: A mechanistic review. *Phytotherapy Research*, 2021; 35: 155-179.
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- [39] Ashrafizadeh M, Zarrabi A, Saberifar S, Hashemi F, Hushmandi K, Hashemi F, Moghadam ER, Mohammadinejad R, Najafi M, Garg M. Nobiletin in cancer therapy: How this plant derived-

- natural compound targets various oncogene and onco-suppressor pathways. *Biomedicines*, 2020; 8.
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- [43] Azmoonfar R, Amini P, Saffar H, Motevaseli E, Khodamoradi E, Shabeeb D, Musa AE, Najafi M. Celecoxib a selective Cox-2 inhibitor mitigates fibrosis but not pneumonitis following lung irradiation: A histopathological study. *Current Drug Therapy*, 2020; 15: 351-357.
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