

Curriculum Vitae



Fereshteh Koosha

PhD of Medical Physics, Assistant Professor

*Department of Radiology Technology, Faculty of Allied Medical Sciences,
Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Email: frshtkoosha@yahoo.com

f.koosha@sbmu.ac.ir

TEL: +98-21-22711131

ORCID: [0000-0001-9190-3157](https://orcid.org/0000-0001-9190-3157)

Google scholar:

https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=GUmjiIQAAAAJ&sortby=pubdate

Academic Background

- 2012-2018
Department of Medical Physics and Biomedical Engineering
Tehran University of Medical Sciences, Tehran , Iran.
Ph.D of Medical Physics
- 2008 to 2011
Department of Medical Physics and Biomedical Engineering,
Tehran University of Medical Sciences, Tehran, Iran
M.Sc. of Medical Physics
- 2003 to 2007
Department of Physics, Faculty of Basic sciences, University of
Mazandaran , Mazandaran , Babolsar, Iran
B.Sc of Physics

Fields of interest

- Cancer treatment , translational oncology, Radiotherapy (treatment planning, verification, dosimetry, image guided radiotherapy)
- Radiobiology, Radiosensitizer drugs (PARP inhibitors), DNA repair pathways , targeted radionuclides, Nanoparticles

Experiences and Computer skills

- Gel Electrophoresis
- Prokaryotic and Eukaryotic Cell Culture
- Pico Green assay
- Colony formation assay
- Western blot
- MTT assay
- Immunocytochemistry (Icc)
- Real time PCR
- Work with laboratory animals
- Work with nuclear medicines
- Absolute and Relative dosimetry in water phantoms and human model phantoms in Imam khomeini hospital and Pars hospital ,Tehran,Iran
- Work with linear accelerators (varian and siemens) in Imam khomeini hospital and Pars hospital ,Tehran, Iran
- Work with treatment planning softwares (conformal radiotherapy)
- Monte carlo simulation (MCNP4C)

- Matlab software
- Explore DTI
- Image J software
- SPSS software
- Prism software

Teaching courses

- Radiobiology
- Clinical radiobiology
- Cell culture (spheroid, monolayer)
- Radiation physics
- Matlab software (image processing in radiology)
- Radiation protection in radiology
- Radiation protection in radiotherapy
- Research methodology course

Publications & Conferences

1. **Koosha, Fereshteh, et al.** "Mesoporous silica coated gold nanorods: a multifunctional theranostic platform for radiotherapy and X-ray imaging." *Journal of Porous Materials* (2021): 1-8.
2. **Koosha, Fereshteh, et al.** "Low-dose radiotherapy (LD-RT) for COVID-19-induced pneumopathy: a worth considering approach." *International Journal of Radiation Biology* 97.3 (2021): 302-312.
3. **Koosha, Fereshteh, et al.** The effect of iodine-131 beta-particles in combination with A-966492 and Topotecan on radio-sensitization of glioblastoma: an in-vitro study." *Applied Radiation and Isotopes*. Accepted : 15 Aug 2021
4. Banneshin, K., Rabi Mahdavi, S., Bitarafan-Rajabi, A., Geramifar, P., Hejazi, P., **Koosha, F.**, & Jadidi, M. (2021). Evaluation of Dose-Painting in the Dominant Intraprostatic Lesions by Radiobiological Parameters using 68Ga-PSMA PET/CT. *Journal of Biomedical Physics and Engineering*.
5. Talebpoor, M., Neshasteh-Riz, A., **Koosha, F.**, & Eynali, S. (2020). The Application of ATR Kinase Inhibitor AZD6738 in Combination with Radiotherapy for the Treatment of Melanoma. *Journal of Biomedical Physics and Engineering*.

6. Mostafaei, Shayan, Hamid Abdollahi, Shiva Kazempour Dehkordi, Isaac Shiri, Abolfazl Razzaghdoust, Seyed Hamid Zoljalali Moghaddam, Afshin Saadipoor, **Fereshteh Koosha**, Susan Cheraghi, and Seied Rabi Mahdavi. "CT imaging markers to improve radiation toxicity prediction in prostate cancer radiotherapy by stacking regression algorithm." *La radiologia medica* 125, no. 1 (2020): 87-97.
7. Mansourian, Ghazale, Mostafa Robotjazi, Hamid Reza Baghani, Ali Neshastehriz, Seied Rabi Mahdavi, and **Fereshteh Koosha**. "Organ at risk dose calculation for left sided breast cancer treatments using intraoperative electron radiotherapy: A Monte Carlo-based feasibility study." *Applied Radiation and Isotopes* 156 (2020): 108977
8. Amani, Samad, Alireza Mehdizadeh, Mohammad Mehdi Movahedi, Marzieh Keshavarz, and **Fereshteh Koosha**. "Investigation of the Dose-Enhancement Effects of Spherical and Rod-Shaped Gold Nanoparticles on the HeLa Cell Line." *Galen Medical Journal* 9 (2020): 1581.
9. Ekrami, Hamid, Mansoureh Movahedin, **Fereshteh Koosha**, Zohreh Mazaheri, and Manijhe Mokhtari-Dizaji. "The effects of calligonum extract and low-intensity ultrasound on motility, viability, and DNA fragmentation of human frozen-thawed semen samples." *International Journal of Fertility & Sterility* 14, no. 2 (2020): 84.
10. Ali Neshasteh-Riz, Narges Rezaei, Zohreh Mazaheri, **Fereshteh Koosha**, Mahmoud Hoormand. "The Combination Of Metformin And Disulfiram-Cu For Effective Radiosensitization On GBM Cells ". *Cell J (Yakhteh)* 22, no. 3 (2020).
11. Balavandi, Z., Neshasteh-Riz, A., **Koosha, F.**, Eynali, S., Hoormand, M., & Shahidi, M. (2020). The use of β -Elemene to enhance radio sensitization of A375 human melanoma cells. *Cell Journal (Yakhteh)*, 21(4), 419.
12. A. Rezaeyan, S. R. Mahdavi, A. Nikoofar, M. Najafi, A. Amrae, **F. Koosha**, S. Cheraghi. "Evaluating the Effects of Radiation and Cisplatin-Based Chemotherapy on Sensorineural Hearing Loss in Patients with Head and Neck Cancer ". *IJRR* (2019)
13. Hosseini, Vahid, Mehri Mirrahimi, Ali Shakeri-Zadeh, **Fereshteh Koosha**, Behafarid Ghalandari, Shayan Maleki, Ali Komeili, and S. Kamran Kamrava. "Multimodal cancer cell therapy using Au@Fe₂O₃ core-shell nanoparticles in combination with photo-thermo-radiotherapy." *Photodiagnosis and photodynamic therapy* (2018).
14. Movahedi, Mohammad Mehdi, Alireza Mehdizadeh, **Fereshteh Koosha**, Neda Eslahi, Vahid Pirhajati Mahabadi, Habib Ghaznavi, and Ali Shakeri-Zadeh. "Investigating the photo-thermo-radiosensitization effects of folate-conjugated gold nanorods on KB nasopharyngeal carcinoma cells." *Photodiagnosis and photodynamic therapy* 24 (2018): 324-331.

15. Neshasteh-Riz, Ali, Zahra Balavandi, **Fereshteh Koosha**, Samira Eynali, Mahmood Hoormand, and Minoos Shahidi. "The use of β -elemene to enhance radio sensitization of A375 human melanoma cells." *Cell J (Yakhteh)* 21, no. 4 (2018).
16. Ghazikhanlou-Sani, Karim, Azizollah Rahimi, Maryam Poorkaveh, Samira Eynali, **Fereshteh Koosha**, and Mohsen Shoja. "Evaluation of the electromagnetic field intensity in operating rooms and estimation of occupational exposures of personnel." *Interventional Medicine and Applied Science*(2018): 1-6.
17. **Koosha Fereshteh**, et al. "The combination of A-966492 and Topotecan for effective radiosensitization on glioblastoma spheroids." *Biochemical and biophysical research communications* 491.4 (2017): 1092-1097.
18. Shahbazi-Gahrouei, Daryoush, Shahnaz Razavi, **Fereshteh Koosha**, and Marzieh Salimi. "Exposure of Extremely-Low Frequency (ELF) magnetic field may cause human cancer." *Acta Medica International* 4, no. 1 (2017): 32.
19. Neshasteh-Riz, Ali, Nazila Eyvazzadeh, **Fereshteh Koosha**, and Susan Cheraghi. "Comparison of DSB effects of the beta particles of iodine-131 and 6 MV X-ray at a dose of 2 Gy in the presence of 2-Methoxyestradiol, IUDR, and TPT in glioblastoma spheroids." *Radiation Physics and Chemistry*131 (2017): 41-45.
20. Neshasteh-Riz, Ali, **Fereshteh Koosha**, Afshin Mohsenifar, and Seyed Rabea Mahdavi. "DNA damage induced in glioblastoma cells by I-131: a comparison between experimental data and Monte Carlo simulation." *Cell Journal (Yakhteh)* 14, no. 1 (2012): 25.
21. Evaluation of organs at risk dose in the left breast IOERT procedures with and with out shielding disc using monte carlo simulation. Ghazaleh Mansourian, Ali Neshastehriz, Mostafa Robotjazi, Fershteh Koosha, Reza Paydar. **12 th Iranian congress in medical physics, 19-20 July 2018 , Shahid Beheshti University of Medical Sciences**
22. Presentation. *DNA Damage Induced in Glioblastoma Cells by I-131: A Comparison between Experimental Data and Monte Carlo Simulation. IUPESM 2015,7th -12th june ,Toronto ,Canada.*
23. Presentation. Determination of relative biological effectiveness (RBE) in cultured Glioblastoma spheroids with comparison of beta particle emitted from I131 and Co60 gamma rays. **9th Iranian congress in medical physics, 18-19 May 2010, Iran University of Medical Sciences**
24. Presentation. Determination of direct damage in DNA, by I-131 and comparing to Monte Carlo simulation in Glioblastoma cells in monolayer cell culture. **9th Iranian congress in medical physics, 18-19 May 2010, Iran University of Medical Sciences**

25. Presentation in the 1st MEFOMP International Conference of Medical Physics, **Shiraz, Iran. November 2-4, 2011.** *DNA Damage Induced in Glioblastoma Cells by I-131: A Comparison between Experimental Data and Monte Carlo Simulation.*