



In the Name of God

***Ministry of Health, Treatment and Medical Education
Iran Medical Researchers Directory***

CURRICULUM VITAE



PERSONAL INFORMATION

Name: Ruhollah

Surname: Ghahramani-Asl

Affiliation: Department of Medical Physics and Radiation Sciences, Faculty of Para medicine, Sabzevar University of Medical Sciences, Sabzevar, Iran

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EDUCATIONAL BACKGROUND

PhD in Medical Physics, Department of Medical Physics, Faculty of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran (2015)

MSc. in Medical Physics, Department of Medical Physics, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran (2008)

BSc. in Applied Physics, Department of Physics, Mashhad University of Basic Sciences, Mashhad, Iran (2005)

DISSERTATIONS

PhD Thesis Title:

- ✓ Optimization of patient-specific 3D internal dosimetry in radionuclide therapy (2013-2015)

MSc Thesis Title:

- ✓ Electron beam dosimetry in heterogeneous phantoms using the MAGIC normoxic polymer gel (2007-2008)

Awards and Ranks

- ✓ High-ranking among PhD candidates of medical physics, Mashhad university of medical sciences, 2015
- ✓ 2nd Rank in PhD exam of Iranian Ministry of Health and Medical Education (Medical physics), 2010
- ✓ High-ranking among MSc students of medical physics, Iran university of medical sciences, 2005
- ✓ 8th Rank in MSc exam of Iranian Ministry of Health and Medical Education (Medical physics), 2005

TEACHING EXPERIENCES

I: Gel dosimetry

- ✓ Principles of gel dosimetry for PhD and MSc of medical physics students, Mashhad university of medical sciences

II: Nuclear Medicine dosimetry

- ✓ Principles of internal dosimetry in nuclear medicine for PhD and MSc of medical physics students, Mashhad university of medical sciences

III: Medical Physics

- ✓ Medical students, Sabzevar university of medical sciences

IV: Bio-instrument

- ✓ Medical engineering, MSc students, Hakim university of Sabzevar

V: Fundamental Physics, Basic Physics

- ✓ Laboratory, occupational and environmental health students, Mashhad university of medical sciences
- ✓ Laboratory, occupational and environmental health students, Sabzevar university of medical sciences

VI: Biophysics

- ✓ Laboratory and public health students, Sabzevar university of medical sciences
- ✓ Physiology, MSc students, Sabzevar university of medical sciences

PROFESSIONAL MEMBERSHIP

- ✓ Member of Medical Physics and Radiation Sciences Department, Faculty of Paramedicine, Sabzevar University of Medical Sciences. 2017 then 2018-Continued.
- ✓ Member of Nutrition and Biochemistry Department, Faculty of Medicine, Sabzevar University of Medical Sciences. 2009 then 2017.
- ✓ Member of Iranian Association of Medical Physics, 2012-Continued.
- ✓ Voluntary researcher in Nuclear Medicine Research Center, Qaem hospital, Mashhad University of Medical Sciences, 2013- Continued
- ✓ Manuscript Reviewer of:
 - *Iranian Journal of Medical Physics*
 - *Journal of Biomedical Physics and Engineering*
 - *Journal of Sabzevar University of Medical Sciences*

RESEARCH FIELDS OF INTERESTS

- ✓ Image based internal dosimetry in Nuclear Medicine
- ✓ Application of Monte Carlo methods for dose calculation in Nuclear Medicine and Radiotherapy
- ✓ SPECT and PET image quantification for patient-specific 3D dosimetry in Radionuclide Therapy

- ✓ Assessment of MIRD protocol for internal dosimetry
- ✓ Constructing of human phantoms for dosimetry and verification of treatment planning systems in radiation therapy
- ✓ Application of polymer gels using MRI imaging for external radiation dosimetry

CONFERENCE PARTICIPATION

1. “Application of MAGIC Normoxic Polymer Gel to Electron Beam Dosimetry in Homogeneous Phantom”
Ghahraman Asl R, Bolouri B, Nedae H, Arbabi A.
1th Congress of Radiation protection in Radiotherapy and Interventional Radiology, Iran, Tehran, 19th to 20th February 2009. (Oral presentation)
2. “Assessment of electromagnetic field intensity in Tehran subway stations”
K. Khoshgard, B.Bolouri, F.Allahveysi, **R.Ghahraman**
1th Conferences of electromagnetic fields assessment on tissues and electrical instruments, Iran, Tehran 27th to 29th May 2008. (Oral presentation)
3. “Electron beam dosimetry in heterogeneous phantoms using MAGIC normoxic polymer gel”
Ghahraman Asl R, Bolouri B, Nedae H, Arbabi A
9th Iranian Conference of Medical Physics, Iran, Tehran 19th to 20th May 2010. (Oral presentation)
4. “Electron beam dosimetry in heterogeneous phantoms using MAGIC normoxic polymer gel”
Ghahraman Asl R, Bolouri B, Nedae H, Arbabi A
World Congress on Medical Physics and Biomedical Engineering, Munich, Germany 7th to 12th September 2009. (Poster presentation)
5. “Monte Carlo and experimental internal radionuclide dosimetry in RANDO head phantom”
Ghahraman Asl R, Nasser S, Parach AA, Zakavi SR, Momennezhad M
11th Iranian Conference of Medical Physics, Iran, Tehran 6th to 7th November 2014. (Oral presentation)
6. “Monte Carlo and experimental internal radionuclide dosimetry in RANDO head phantom”
Ghahraman Asl R, Nasser S, Parach AA, Zakavi SR, Momennezhad M
11th Iranian Conference of Medical Physics, Iran, Tehran 6th to 7th November 2014. (Oral presentation)
7. “Estimation of patient-specific internal organs absorbed dose for ^{99m}Tc-Hynic-Tyr³-Octreotide imaging: a 3D Monte Carlo method” **Ghahramani-Asl R**, Nasser S, Parach AA, Zakavi SR, Momennezhad M. *The 21th Annual & 6th International Nuclear Medicine & Molecular Imaging Congress, Iran, Mashhad 22th to 24th November 2017. (Oral presentation)*
8. Assessment of radiation dose distribution of different radioisotopes used to treatment of bone metastasis and pain relief patients in a bone model of foot. **Ruhollah Ghahramani Asl, Fatemeh Razghandi**. *12th Iranian Congress of Medical Physics, Iran, Tehran 19-20 July 2018. (Poster presentation).*
- 9.

PUBLICATIONS

1. **Ghahraman Asl R**, Bolouri B, Nedaie H, Arbabi A. Application of MAGIC Normoxic Polymer Gel to Electron Beam Dosimetry in Homogeneous Phantom. *RJMS*. 2010; 16 (67) :14-22

2. **Ghahraman Asl R.**, Nedaie H., Bolouri B., Arbabi, A. Electron beam dosimetry in heterogeneous phantoms using a MAGIC normoxic polymer gel. *Iranian Journal of Medical Physics*, 2010;7(1), 53-63.
3. **Ghahraman Asl R.**, Bolouri B, Nedaie H, Arbabi A. Electron beam dosimetry in heterogeneous phantoms using MAGIC normoxic polymer gel. *WC2009, IFMBE Proceeding* 25/1, pp.825-828, 2009
4. Nedaie HA, **Ghahraman AR**, Bolouri B, Arbabi A. Poster — Thur Eve — 69: Electron beam dosimetry in heterogeneous phantoms using the MAGIC normoxic polymer gel. *Med Phys* 2012;39(7);4638
5. **Ghahraman Asl R**, Nasser S, Parach AA, Zakavi SR, Momennezhad M, Davenport D. Monte Carlo and experimental internal radionuclide dosimetry in RANDO head phantom. *Australas Phys Eng Sci Med* 2015; 38(3):465-72.
6. Momennezhad M, Nasser S, Parach AA, Zakavi SR, **Ghahraman Asl R**. A 3D Monte Carlo method for estimation of patient-specific internal organs absorbed dose for ^{99m}Tc-hynic-Tyr³-octotide imaging. *World J Nucl Med* 2016; 15(2):114-23.
7. **Asl RG**, Parach AA, Nasser S, Momennezhad M, Zakavi SR, Sadoughi HR. Specific absorbed fractions of internal photon and electron emitters in a human voxel-based phantom: A monte carlo study. *World J Nucl Med* 2017;16(2):114-21.
8. **Ghahraman Asl R**, Parach A A, Nasser S, Momennezhad M, Zakavi S R, Mehrpouyan M. Estimation of Photon and Electron Specific Absorbed Fractions for Selected Organs of a Human Voxelizedphantom Using GATE Monte Carlo Package. *Biomedical and health J*. 2016 ;1(2):e6011.
9. **Asl, R. Ghahraman**; Nedaie, H.A.; Banaee, N. Evaluation of the Accuracy of Polymer Gels for Determining Electron Dose Distributions in the Presence of Small Heterogeneities. *Health Physics*. 2017;113(6):444-451.
10. **Asl, R. Ghahraman**; Nedaie, H.A.; Banaee, N. Evaluation of the Accuracy of Polymer Gels for Determining Electron Dose Distributions in the Presence of Small Heterogeneities. *Health Physics*. 2017;114(4): 464-464.
11. Khoshgard K, Razghandi F, Allaveisi F, **Ghahramani-Asl R**. Quantitative Evaluation of Electromagnetic Field Intensity at Different Metro Stations in Tehran, Iran and Comparison with the Standard Limits. *Biomedical and health J* .2017;2(4) 46-53.
12. Babaei M, **Ghahramani-Asl R**, Sadoughi HR, Sardari D, Shahzadi S. Evaluation of Bremsstrahlung radiation dose in stereotactically radiocolloid therapy of cystic craniopharyngioma tumors with (32) P radio-colloid. *Australas Phys Eng Sci Med*.2018;41(3):697–711.
- 13.

WORKSHOPS

1. CT and PET principles and applications, GE Co. & Iran University of Medical Sciences, *Tehran, Iran, February 2006*
2. Radiation protection workshop in Nuclear Medicine departments, *Tehran- Iran. 16th - 18th October 2007*
3. DOSI-soft treatment planning workshop, Mahak-Hospital, *Tehran, Iran, 8 January 2008*
4. Workshop on How to review a paper, Tehran university of medical sciences, *Tehran, Iran, November 2008*

5. Educational workshop in Radiotherapy (dosimetry and treatment planning). *Institute cancer of Emam Khomeini hospital, Tehran, Iran. 24th - 29th April 2010*
6. 1st MEFOMP International Conference of Medical Physics, *Shiraz, Iran, 26th - 28th October 2011*
7. Ionizing radiation, sources, detection and biological effect, *Medical Physics Research Center. Mashhad, Iran. 6th - 7th June 2011*
8. Workshop on advances dosimetry in radiation therapy, *Mashhad, Iran. 24th November 2011*
9. Workshop on clinical applications of treatment planning system and radiation dosimetry, *Reza Radiation Oncology Center (RROC) and Medical Physics Research Center. Mashhad, Iran. 9th - 11th October 2013*
10. 1st Siemens Radiation Therapy users meeting, Mashhad, Iran, 6th -8th May 2014
11. Quality Control of Hybrid Imaging Instruments in Nuclear Medicine Workshop, in the 21st Annual and 6th International Congress of Nuclear Medicine and Molecular Imaging, 22-24 November 2017
12. 3GU and 4GU in Iran medical university of Sciences. Mashhad Iran, EDC. 10 December 2018.

EXPERIENCE

Computer Skills

- Operating Systems: Windows, Linux
- 2D and 3D treatment planning systems; Alphard, RTDOSE, DOSI-soft
- Programing: MATLAB
- Syngo MI Application, Department of Nuclear Medicine, Qaem Hospital, MUMS

Software:

- MCNPX, GATE
- AMID, XMedcon, 3D and 4D slicer, ITK, MATLAB (Image processing, ...)
- ENDNOTE, Statistical analysis software (SPSS)
- Microsoft office (Word, Power point, Excel)