



### Personal Data

Name: Mohsen Bakhshandeh  
Date of Birth: 23.08.1979  
Marital Status: Married  
No. of Children: one daughter and one boy  
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### Work address

1. Radiology & Radiotherapy department- Para Medical Faculty- Shahid beheshti university of medical sciences-Darband St- Ghods Sq- Tajrish Sq- Tehran-Iran.
2. Shohadaye tajrish hospital- Shahid beheshti university of medical sciences- Tajrish Square-Tehran-Iran.

## EDUCATION

- **Ph.D. in Medical Physics** **2012**  
Tarbiat modares University, Tehran, Iran.

**Thesis title:** Determination of the Thyroid Dose-Response in Patients Undergoing Head and Neck External Radiotherapy Using the Functional Assay Method Based on the DMH Concept in the NTCP Models.

- **M.Sc. in Medical Physics** **2006**  
Tarbiat modares University, Tehran, Iran.

**Thesis title:** Attenuation correction in myocardial perfusion SPECT using transmission scanning with TC-99m.

- **BSc in radiology technology** **2002**  
Faculty of Para Medical sciences, Shahid beheshti university of medical sciences, Tehran, Iran.

## WORK EXPERIENCES

- **Assistant Professor** **2013 to present**  
Radiology & Radiotherapy Department- Para Medical Faculty- Shahid Beheshti University of Medical Sciences, Tehran, Iran.

- **Manager of Postgraduate Studies** **2014 to present**  
Para Medical Faculty- Shahid Beheshti University of Medical Sciences, Tehran, Iran.

- **Chief Medical Physicist (Radiation Oncology)** **2010 to present**  
Shohadaye tajrish Hospital – Shahid beheshti university of medical Sciences, Tehran, Iran.

- Calibration of Simulator and Treatment machines
- Commissioning of linear Accelerators
- Dosimetry and QA of treatment machines
- 3D Conformal treatment planning
- Research in clinical radiobiology

- Research in NTCP Modeling
- Research in advanced Radiotherapy
- Radiation Protection officer
- Hyperthermia in oncology
- IMRT
- IMRT Dosimetry

➤ **Medical Physicist (Radiation Oncology)** **2005 to 2010**  
Fayaz bakhsh Hospital – Social security organization of Iran

- Calibration of Simulator and Treatment machines
- Dosimetry and QA of treatment machines
- 3D Conformal treatment planning
- Cobalt Tele therapy machine
- Research

➤ **Nuclear Medicine Physicist /RSO** **2004 to 2005**  
Alvand nuclear medicine center – Tehran – Iran

- QA/QC Gamma Camera of different models
- Commissioning and Acceptance Test of Gamma Camera and Dose Calibrators
- QA/QC and Acceptance Testing of Dose Calibrators
- Drafting and implementing radiation protection policy in the center
- Supervised installation of equipment in the department of nuclear per recommendation of AAPM/IAEA/NEMA

➤ **Medical Radiation Technologist (CT , MRI)** **2002 to 2004**  
Milad Hospital – Tehran – Iran

## **MEMBER OF ASSOCIATIONS**

- **Member of IAMP ( Iranian Association of Medical Physicists)**  
**2004 to present**
- **Member of ESTRO ( European Society for Radiotherapy & Oncology)**  
**2013 to present**
- **Member of AAPM ( American Association of Physicists in Medicine)**  
**2013 to present**

## Professional Trainings

- **QA IMRT PLAN ( SWEDEN)** 2015
- **RAY STATION TPS ( SWEDEN)** 2015
- **SRS-SBRT-VMAT-mArc ( Germany)** 2015
- **VMAT/IMRT Clinical School (Germany)** 2015
- **VMAT/IMRT (Switzerland)** 2015
- **Eclipse TPS (Switzerland)** 2014
- **OIS-ARIA (R&V) (Switzerland)** 2014
- **Hyperthermia (Germany & Switzerland)** 2014
- **IMRT Technique ( Germany )** 2014
- **IMRT Dosimetry ( Germany)** 2014
- **PET-CT ( Hungary, Budapest)** 2013
- **Isogray Treatment Planning system (Paris, France)** 2012
- **Radiation Dosimetry (Germany)** 2012
- **Contrast Media in medical imaging** 2011
- **Radiation protection in radiotherapy** 2010
- **Medical instrumentations** 2008  
Tarbiat modares university , Tehran ,Iran
- **New techniques in radiotherapy (workshop)** 2007  
shahid beheshti university , Tehran, Iran
- **Mammosite and brachytherapy (workshop)** 2007  
shahid beheshti university , Tehran, Iran
- **QA/ QC and Radiation Protection in Radiotherapy** 2007  
Tarbiat modares university , Tehran ,Iran
- **Advance Radiation Safety Course** 2007  
Tarbiat modares university , Tehran ,Iran
- **2D and 3D Treatment planning in radiotherapy** 2006  
Tarbiat modares university , Tehran ,Iran
- **Radiation Dosimetry** 2004

Tarbiat modares university , Tehran ,Iran

- **Physics of MRI , CT , Ultrasound , PET , SPECT** **2002**  
Tarbiat modares university , Tehran ,Iran
- **Techniques of MRI , CT , Ultrasound , PET , SPECT** **2000**  
shahid beheshti university , Tehran, Iran
- **Techniques of Radiography** **1998**  
shahid beheshti university , Tehran, Iran

### Teaching Experiences

- 2009 to present- Shahid beheshti university of medical sciences: Medical Physics , Radiobiology, Radiation protection, physics of linear accelerators, Dosimetry, treatment planning.
- 2012 to present- Shahid beheshti university of medical sciences: Clinical Radiobiology to Radiation Oncologists.
- 2005- 2009- Artesh university of medical sciences: Physics for Physiotherapy students, Radiotherapy techniques for radiographers.
- 2001- 2008- Artesh university of medical sciences: Different topics of Medical Physics for Para-medical students, Medical Physics for Medical students and Dentistry.
- 2001-2002- Artesh university of medical sciences: Radiotherapy physics for B.Sc students of Radiotherapy Technology.

### PUBLICATIONS

- Susan Cheraghi, Parsa Nikoofar, Pedram Fadavi, **Mohsen Bakhshandeh**, et al. Short-term cohort study on sensorineural hearing changes in head and neck radiotherapy. **Med Oncol** 2015 Jul 13; 32(7):200.
- Amin Banaei, Bijan Hashemi, **Mohsen Bakhshandeh**. Comparing the monoisocentric and dual isocentric techniques in chest wall radiotherapy of mastectomy patients. **J Appl Clin Med Phys** 2015 8; 16(1):5069.

- Ainaz Sourati, Mona Malekzadeh, **Mohsen Bakhshandeh**, et al. Evaluation of Relationship between Testicular Dose and Hormonal Changes after Radiotherapy in Patients with Rectal Cancer. **Reports of radiotherapy oncology 2015**.
- Mojtaba Navabpour, Zhilla Jamshidinia, **Mohsen Bakhshandeh**. Studying a specific tumor marker by a new method and analyzing its efficiency in labeling animals. **Annals of Military and Health Sciences Research 2015**; 13 (1): 15-20.
- Tahere Dehghan, Hossein Mozdarani, Arezoo Khoradmehr, Seyed Mehdi Kalantar, **Mohsen Bakhshandeh**, et al. Evaluation of embryo quality after concurrent use of ovarian stimulating hormones and gamma irradiation. **Iran J Reprod Med 2014** Aug; 12(8):573-80.
- **Bakhshandeh M**, Hashemi B, Mahdavi SR, et al. Evaluation of Thyroid Disorders During Head-and-Neck Radiotherapy by Using Functional Analysis and Ultrasonography. **Int J Radiat Oncol Biol Phys 2012**; 83(1):198-203.
- **Bakhshandeh M**, Hashemi B, Mahdavi SR, et al. NTCP Modeling of Radiation Induced Hypothyroidism following Head and Neck Radiotherapy. **Int J Radiat Oncol Biol Phys 2013**; 85(2):514-521.
- **Bakhshandeh M**, Rajabi H, Vafamanesh M. Attenuation correction in myocardial perfusion SPECT using transmission scanning with TC-99m ; **Iranian journal of nuclear medicine 2006**.
- **Bakhshandeh M**, Salooti M. quality control of nuclear medicine instruments. **Iranian journal of medical engineering 2005**.

#### **Oral Presentation In Congress**

- Bakhshandeh M, Hashemi B, Mahdavi SR. The Effect of DMH versus DVH for the NTCP Modeling of Hypothyroidism following Head and Neck

Radiotherapy of Patients. Beijing, China 2012, World congress on medical physics and biomedical engineering.

➤ Bakhshandeh M, Rajabi H, Vafamanesh M. Attenuation correction in myocardial perfusion SPECT using transmission scanning with TC-99m. Tehran, Iran 2007, Iranian congress of nuclear medicine.

## CONFERENCES

- 11 th international congress of Medical Physics. 2015, Tehran, Iran.
- Physics of linear accelerators Conference , 2008 , Tehran ,Iran.
- International Cancer Conference, 2007, Tehran, Iran.
- International Nuclear Medicine Conference, 2006, Tehran, Iran.

## Thesis Supervisor

- 1- 2015 (1394) - the role of curcumin as radioprotector in peripheral lymphocyte in patients with differential thyroid carcinoma by micro nuclei assay. "Maryam Farhadi, Msc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 2- 2015 (1394) – combination of celecoxib with radiotherapy in prostate cancer patients with control groups. "Saeideh Mir Mohammadi Rad, Msc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 3- 2015 (1394) – "Masoumeh Aminian, Msc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 4- 2015 (1394) – "Masoumeh Barzegar, Msc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 5- 2015 (1394) – "Asgari, Msc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 6- 2014 (1393)- Comparison of rectal complications and tumor control in conventional and Hypofractionation radiotherapy in patients with prostate cancer- " Elham Razavi, MSc, Radiobiology"- Shahid Beheshti University of Medical Sciences.
- 7- 2014 (1393)- tumor control in patients with GBM after radiotherapy using MRS, DWI techniques- " Moslemi, MSc, MRI"- Shahid Beheshti

University of Medical Sciences.

- 8- 2014 (1393)- Development of new 3D Dosimetry system in CT Scan " Ebrahim Jafari, MSc, Radiobiology"- Shahid Beheshti University of Medical Sciences.

### Thesis Advisor

- 1- 2014 (1393)- NTCP Modelling of Kidney injury after radiotherapy in patients with stomach cancer- " Zohreh Azma , PhD, Radiation Medicine" - Shahid Beheshti University.
- 2- 2014 (1393)- Determination of Hearing System Dose-Response in Teletraphy of Head and Neck by Functional Assay Based on Normal Tissue Complication Probability Models-" Sousan Cheraghi , PhD, Medical Physics" - Tehran University of Medical Sciences.
- 3- 2014 (1393)- Evaluation of sterility after radiotherapy in patients with ovary cancer- " Fatemeh Dehghan , MSc, Radiobiology" - Shahid Beheshti University of Medical Sciences.
- 4- 2013 (1392)- Evaluation of relationship between testis dose and hormonal changes after radiotherapy in patients with rectal cancer- " Ainaz Sourati , MD, Specialist of Radiation Oncology" - Shahid Beheshti University of Medical Sciences.
- 5- 2013 (1392)- assessment and comparison of the dose received by the target tissue, the critical organs (heart and lungs) and hot and cold spots in the tissue surrounding the target area in radiotherapy with linear accelerator with 6MV external photon beam for treatment of breast cancer using a Mono-Isocentric Technique and Non Mono-Isocentric Techniques in computerized treatment planning system- " Amin Banaei , MSc, Medical Physics" – Tarbiat Modares University.
- 6- 2013 (1392) - Comparison of inverse square law of distance and Monte Carlo simulation methods for determination of electron source location in Siemens Primus linac - " Hamid Shafaei Duke, MSc, Radiation Medicine" – Shahid Beheshti University.
- 7- 2013 (1392) - Evaluation of hearing system injury after radiotherapy in patients with head and neck cancer - " Akram Haji Safari, MSc, Radiobiology" – Shahid Beheshti University of Medical Sciences.



