

Mahdi Asgari

Assistant Professor of Medical Physics - Department of Medical Physics, Semnan University of Medical, Semnan, Iran

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Personal Details

First Name: Mahdi

Family Name: Asgari

Date of Birth: March, 27, 1988

Place of Birth: Tehran, IRAN

Gender: Male

Nationality: Iranian

Educational Qualifications

- **2006-2009**

B.Sc. in Physics, Urmia University, Urmia, Iran

- **2010-2013**

M.Sc. in Medical Physics, Isfahan University of medical sciences, Isfahan, Iran

- **2013-2019** (*Ranked 12 in Phd's Degree Entrance Examination*)

Ph.D. in Medical Physics, Isfahan University of medical sciences, Isfahan, Iran

Former/Current Position(s)

- **Instructor and lecturer:** Medical physics Department, Tehran Medical Sciences Islamic Azad University, Tehran, Iran (2019-2020)
 - **Assistant Professor of Medical Physics:** Department of Nursing, School of Nursing, Larestan University of Medical Sciences, Lar, Iran. (2020-2022)
 - **Assistant Professor of Medical Physics:** Department of Medical Physics, Semnan University of Medical, Semnan, Iran (2022-Present)
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Courses Taught & workshop

- The Basics Physics of MRI I (Medical Physics MSc students)
 - X-ray Imaging Systems (Medical Physics MSc students)
 - Magnetic Resonance Imaging –MRI (Radiology technology students)
 - The Basics Physics of Computed Tomography _ CT (Radiology technology students)
 - Medical Physic (Medical students) / Medical Physic (Dentist students) / Medical Physic (Anesthesia students)
 - Medical physics, Electricity and Robotic (Operation Room students)
 - Radiobiology (Molecular Biology students)
 - The basics of common radiology images in the operating room (Operation Room students)
 - Biophysics (Laboratory Sciences students) / Biophysics (Genetics and Molecular Biology students)
 - Thermodynamic (Environmental Health students)
 - Dedicated physic I & II (Professional Health students)
 - Solid Mechanic (Professional Health students)
 - Public physic (Public Health students)
 - Public physic laboratory
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- Basic physics of Dual Energy X-ray Absorbtion (DXA) (2 days **workshop**)
 - Basic physics of Magnetic Resonance Imaging (MRI) (**workshop**)
 - Radiation Safety against Ionizing Radiation (**workshop**)
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Research Interests

Medical Imaging (*Magnetic Resonance Imaging (MRI), Dual Energy X-ray Absorption (DXA), Computed Tomography (CT), Diagnostic Ultrasound*) - Molecular Imaging - Optical Imaging - Nanoparticle Contrast Agents

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Publications

Papers:

- 1- Salamat MR, Shanei A, Siavash M, ..., **Asgari M** . Use of conventional regional DXA scans for estimating whole body composition. *Archives of Iranian medicine* 17 (10), 674 (2014).
- 2- Pourmir AR, **Asgari M**, Kalarestaghy H, **Moghadam HN**. Evaluation of the carcinogenic risk of granite used in building materials in Zahedan. *Medicine and Public Health Journal, Volume 1, Issue 1, January (2014)*.
- 3- Salamat MR, Shanei A, **Asgari M**, Salamat A, Khoshhali M. Using Anthropometric Indices Predictive Equations for Estimating Whole-Body Fat Mass Instead of Whole Body DXA Scan. *Vol. 32, No. 292, 1st Week, September (2014)*
- 4- Salamat MR, Shanei A, Salamat AH, Khoshhali M, **Asgari M**. Anthropometric predictive equations for estimating body composition. *Advanced biomedical research* 4 (2015).
- 5- **Asgari M**, Motaghi H, Khanahmad H, Mehrgardi MA, Farzadnia A, Shokrani P. Preparation and Characterization of Spion-CDs as a Multifunctional Fluorescence/Magnetic Resonance Nanoparticle. *Acta Chemica Iasi.*;27(1):87-98.
- 6- **Asgari M**, Khanahmad H, Motaghi H, Farzadnia A, Mehrgardi MA, Shokrani P. Aptamer modified nanoprobe for multimodal fluorescence/magnetic resonance imaging of human ovarian cancer cells. *Applied Physics A. 2021 Jan;127(1):1-9*.
- 7- Rezaei M, Mengelizadeh N, Berizi Z, Salehnia S, **Asgari M**, Balarak D. Synthesis of MMT– CuFe₂O₄ Composite as a Peroxymonosulfate Activator for the Degradation of Reactive Black 5. *ChemistrySelect. 2023 Jan 16;8(2):e202201729*.

POSTER PRESENTATIONS:

- 1- **Asgari M**, other authors. Using Anthropometric Indices Predictive Equations for Estimating Whole-Body Fat Mass Instead of Whole Body DXA Scan. The 11th Iranian International Medical Physics Conference, Nov 6 (2014)

- 2- **Asgari M**, A type of new aptamer-conjugated multifunctional fluorescent magnetic nanoparticle for cells imaging. 8th International E-congress on Nanosciences and Nanotechnology, (2021)
- 3- **Asgari M**, Synthesis and characterization of monoclonal antibody conjugated superparamagnetic iron oxide nanoparticles for molecular imaging of lung cancer using MRI 8th International E-congress on Nanosciences and Nanotechnology, (2021)
- 4- **Asgari M**, Ovarian Cancer Cell Detection by Aptamers. 5th international cancer congress (2021)

Book:

- 1- Bone Densitometry via Dual Energy X-ray Absorptiometry (DXA) - 2022, Ana Teb publisher, Tehran, Iran.

Technical Skills and Work Experiences

- Cell culture
- In vivo laboratory experiences (mice)
- Set up a **Physics laboratory** for radiology technology bachelor's program in Larestan university of Medical Sciences and Health Services
- Set up a **Dosimetry laboratory** for radiology technology bachelor's program in Larestan university of Medical Sciences and Health Services
- Set up a **Quality Control laboratory** for radiology technology bachelor's program in Larestan university of Medical Sciences and Health Services

Membership and Workshop

- Membership in Iranian Association of Medical Physicists
- 110 hours Workshop, "radiation protection for medical centers", Iranian Association of Medical Physicists, Tehran
- 50 hours Workshop, "Electronic-learning & Virtual-learning", Larestan university of Medical Sciences and Health Services, Larestan, Iran
- 40 hours Workshop, "Magnetic Resonance Imaging comprehensive course", National Brain Mapping Laboratory (NBML), Tehran College of Engineering
- 2 Days Workshop, "Pre-clinical MR imaging", National Brain Mapping Laboratory (NBML), Tehran College of Engineering

- 2 Days Workshop, “3D treatment planning”, Iranian Association of Medical Physicists, Tehran, Iran
- 2 Days Workshop, “MATLAB (Basic)”, Iranian Association of Medical Physicists, Tehran, Iran
- 1 Days Workshop, “Microdosimetry”, Iranian Association of Medical Physicists, Tehran, Iran

