

## List of Inventions of the Medical Physics Department (June 2021)

No.	Publication	Inventor/s	Title	
International Patent	1	US Patent No. 10199131	Alireza Farajollahi, Azim Khajeh-ali	Automatic transfer system
Domestic Patents	1	Patent No. 94727	Parisa Akhlaghi, Iman Amini	Fabrication of a physical chest phantom for use in radiation activities such as calibration and dosimetry
	2	Patent No. 89963	Parinaz Mehnati, Mehran Arash	Design and fabrication of breast radiation shield using various bismuth compounds with silicone matrix for use in CT and CT angiography of the chest
	3	Patent No. 89944	Parinaz Mehnati, Farhood Fahima	Source of near-infrared rays to image vascular changes in breast tissue
	4	Patent No. 85646	Parinaz Mehnati, Maedeh Jafari	Construction of the breast phantom with vessels
	5	Patent No. 82818	Alireza Farajollahi, Azim Khajeh-ali	Automatic system for transferring laboratory and industrial samples in front of the reactor neutron column with the ability to distribute the dose uniformly and used in the dosimetric process of the BNCT treatment method
	6	Patent No. 97619	Reza Malekzadeh	Air generating pumps for aquatic animals and water treatment centers without the use of electricity
	7	Patent No. 97329	Parinaz Mehnati, Reza Malekzadeh, Mohammad Yousefi Sooteh	Silicone rubber belt protector - micro bismuth
	8	Patent No. 97332	Parinaz Mehnati, Reza Malekzadeh, Mohammad Yousefi Sooteh	New nano-bismuth oxide composite reducing beam
	9	Patent No. 98676	Tohid Mortezaazadeh, Reza Malekzadeh	Gadlenium oxide-based diagnostic-therapeutic nanoparticles in magnetic resonance molecular imaging

10	Patent No. 99631	Tohid Mortezaazadeh, Jalil Pirayesh Islamian, Reza Malekzadeh	Contrast-enhancing nanoparticles and metabolism trackers as a conventional radiopharmaceutical alternative to PET molecular imaging
11	Patent No. 99993	Jalil Pirayesh Islamian, Tohid Mortezaazadeh, Reza Malekzadeh	Ergonomic office desk with height adjustment
12	Patent No. 99761	Reza Malekzadeh, Behzad Baradaran	Antibacterial lab coat with UV detector label
13	Patent No. 96315	Parinaz Mehnati, Mehran Arash	Fabrication of breast radiation shield using different bismuth compounds with polyurethane matrix for use in CT and CT angiography of the chest
14	Patent No. 97299	Seyed Hossein Rasta	Real-time air condition monitoring system in room isolated from airborne infections
15	Patent No. 102804	Reza Malekzadeh	Fabric coated with nanocomposite as X-ray shield
16	Patent No. 101540	Asghar Mesbahi, Reza Malekzadeh, Tohid Mortezaazadeh	Radiation composite shield for nuclear medicine applications
17	Patent No. 104346	Reza Malekzadeh	Nanoparticle magnetic guiding system for diagnostic and therapeutic applications