



Tabriz University of Medical Sciences (TUOMS)
School of Medicine

Curriculum Vitae

Personal Data:

First name: Babak

Last name: Mahmoudian

Nationality: Iranian

Date of birth: 19.09.1970

Place of birth: Macoo

Marital status: Married

Specialty: Nuclear Medicine, FEBNM

Academic rank: Assistant Professor

Department/Research Center: Radiology, Division of Nuclear Medicine

Address (Office): Division of Nuclear Medicine, Imam Reza Hospital, Golgasht Avenue, Tabriz. IRAN

Telephone (Office): +98(41)33362504

Fax (Office): +98(41)33362504

Cell Phone: +98(914)3174278

E-mail: mahmoudianb@tbzmed.ac.ir, babakmahmudian@yahoo.com

***h*-index (Scopus):** 10

ORCID ID:

Scopus ID: 6508236800

Researcher ID:

ORCID:



Fields of interest

Nuclear Cardiology, Nuclear Oncology

Skills: (language, software...)

Languages: Persian, English, Turkish (Azarish and Turkey).

Software: word, excel, powerpoint, e.soft,

Educational Background:

Date	Degree	Institution	Country
May 2019 – September 2019	Fellowship in PET/CT	Tehran University of Medical Sciences	IRAN
Oct 2006	Fellowship in European Board in Nuclear Medicine (FEBNM)	European Association of Nuclear Medicine	TURKEY
Sept 2004 – Sept 2005	Iranian Board of Nuclear Medicine	Tehran University of Medical Sciences	IRAN
October 1999 - December 2003	Diploma of Specialist of Nuclear Medicine	University of Hacettepe, Ankara	TURKEY
Sep 1988-Sept 1995	Doctorate of Medicine	Tabriz University of Medical Sciences	IRAN
Sep 1984 – Sep 1988	Diploma of Experimental Sciences	Shahid Mostafa Khomeini(Mehr), Tabriz	IRAN

Sabbaticals:

Start and End Date (month/year)	Details
---------------------------------	---------

Thesis

Degree	Title
Specialist of Nuclear medicine	Detection of Silent Myocardial Ischemia with Tc-99m MIBI Gated SPECT in Hemodialysis Patients. Supervisor: Prof . Meltem Caglar. mcaglar@hacettepe.edu.tr
Doctorate of Medicine	Last Statistical Study of Humerus Fractures in Patients Hospitalized in Orthopedic Ward of Imam Hospital Over the Five Years (No: A/63 - 1 - June 20, 1995). Supervisor: Prof. Habib Mesbah.

Educational experience

Teaching

Date (month/year)	Course Name, Venue (Institution, Address)
Each month from June 2012	Essentials of Imaging in Nuclear Medicine, Students of medicine Faculty of Medicine, Tabriz University of Medical Sciences, Department of Radiology
Each month from June 2012	Essentials of Nuclear endocrinology, Students of medicine Faculty of Medicine, Tabriz University of Medical Sciences, Department of Radiology
Each month from June 2012	Essentials of Nuclear cardiology, Students of medicine Faculty of Medicine, Tabriz University of Medical Sciences, Department of Radiology
Each year from June 2012	Essentials of Nuclear cardiology, Residents of cardiology Faculty of Medicine, Tabriz University of Medical Sciences, Department of Radiology
Each year from June 2012	Essentials of Nuclear endocrinology, Fellowships of endocrinology Faculty of Medicine, Tabriz University of Medical Sciences, Department of Radiology

Workshop(s)

Date (month/year)	Course Name, Venue (Institution, Address)
May 2014	Workshop of Brain PET/SPECT analysis. First Iranian Conference on Human Brain Mapping held by Shahid Beheshti University of Medical sciences, Tehran, IRAN

Lecture(s)

Date (month/year)	Details
August 2003	Detection of silent Myocardial Ischemia with 99mTc-MIBI SPET in Hemodialysis Patients: Relation with Cardiovascular Risk Factors. Annual congress of EANM, Amsterdam, Nederland
June 2005	Role of Tc-99m MIBI gated SPECT for the detection of silent myocardial ischemia in hemodialysis patients: Which patients are at risk?, 52nd annual meeting of society of nuclear medicine. Toronto, Canada
July 2010	Utilization of brain perfusion SPECT in post-traumatic anosmia. Babak Mahmoudian, CME of Rhinology, Tabriz, IRAN
November 2010	Effects of Enhanced External Counterpulsation on Myocardial Perfusion in Patients Unsuitable for Invasive Interventions. International Congress of Nuclear Medicine and National Congress of Iranian Society of Nuclear Medicine, Mashad, Iran
September 2011	Indications of PET/CT in Oncology. Babak Mahmoudian, 2nd International Scientific Congress of Azarbaijan Physnicians, Tabriz, IRAN
November 2012	Role of PET in prognosis and response to treatment in glial tumors. Babak Mahmoudian 3rd International Scientific Congress of Azarbaijan Physicians, Tabriz, Iran
November 2013	Imaging in Acute Stroke; Role of Brain Perfusion SPECT in Acute CVA. 6th National and first International Iranian Stroke Congress, Tabriz, IRAN
December 2013	Role of Captopril renal scan in diagnosis of renovascular hypertension. CME in renovascular hypertension held by Tabriz University of Medical Sciences, Tabriz, IRAN
February 2014	Role of Scintimammography in characterization of breast masses. CME in Imaging in Breast Cancer held by Tabriz University of Medical Sciences, Tabriz, IRAN
November 2014	Somatostatin Imaging in Lung Masses; Incremental Value of Co-registration of SPECT on Non-contrast Enhanced CT. 18 th Iranian Annual and 6 th

	International Congress of Nuclear Medicine, Tehran, Iran
December 2014	Essential of Imaging in Nuclear Medicine. CME in Familiarity with Medical Imaging Modalities held by Tabriz University of Medical Sciences, Tabriz, IRAN
October 2015	New advances in brain SPECT. International seminar: Advances in Neurology, Psychiatry and Radiology, held by Tabriz University of Medical Sciences, Tabriz, IRAN
19 February 2017	Role of Nuclear Medicine in Thyroid nodules. CME in Thyroid Nodules held by Endocrine Glands Research Center of Tabriz University of Medical Sciences, Tabriz, IRAN
25 February 2017	Clinical applications of static renal scan and radionuclide voiding cystourterography. CME in imaging and nuclear medicine applications in urology. East Azarbaijan branch of Urology Association, Kaya Hotel, Tabriz, IRAN
November 2018	Diagnostic Accuracy of offline lung perfusion SPECT/CT in Pulmonary Embolism, 22th Iranian Annual Congress of Nuclear Medicine, Yazd, Iran
2nd May 2019	Application of PET/CT in gastric cancer, CME in new advances in gastric cancer, Tabriz Valiasr (International) hospital, Tabriz, IRAN
9 th October 2019	SPECT and PET in Parkinson's disease, 4th Prof. Alavi International Meeting, Tabriz University of Medical Sciences, Tabriz, IRAN
3 rd November 2019	PET/CT in cancer of cardia, CME in New advances in diagnosis and treatment of cancer of cardia, Kaya hotel, Tabriz, IRAN

Research Activities:

Research areas, Interests

Nuclear Cardiology, Nuclear Oncology

Books:

N	Title	authors	Publisher	Authorship/ Translation/
---	-------	---------	-----------	-------------------------------

Selected articles:

N	Title	Authors	Journal	Year	Indexed in (Scopus, Medline, WOS,)
1	Soft Tissue Uptake of Bone Radiopharmaceuticals	Tuncel M, Erbaş B, Mahmoudian B	Seminars in Nuclear Medicine	2003 Oct; 33(4):334-7	ISI, Scopus, PubMed, Embase
2	Selected intra-arterial injection of Tc-99m MDP	Mahmoudian B , Ozgen Kiratli P, Tuncel M, Bozkurt F.	Rev Esp Med Nucl	2004 Jul-Aug; 23(4):284-5	ISI, Scopus, PubMed, Embase
3	Value of Tc- 99m methoxyisobutylisonitrile gated SPECT for the detection of silent myocardial ischemia in hemodialysis patients: clinical variables associated with abnormal test results	Meltem Caglar, Babak Mahmoudian , Kudret Aytemir, Serkan Kahraman, Mustafa Arici, Giray Kabakci and Erdem Karabulut	Nucl Med Commun	2006 Jan; 27(1):61-9	ISI, Scopus, PubMed, Embase
4	Behcet Disease With an Intrapulmonary Shunt	Murat Tuncel; Pinar Ozgen Kiratli; Babak Mahmoudian	Clinical Nuclear Medicine	2006 March; 31(3):181-182	ISI, Scopus, PubMed,

					Embase
5	A comparative study of lung masses with Tc-99m Sestamibi and pathology results	Oskoei SD, Mahmoudian B.	Pak J Biol Sci	2007 Jan 15; 10(2):225-9.	Scopus, PubMed
6	McCune–Albright syndrome associated with acromegaly and bipolar affective disorder	Pelin Ozcan-Kara, Babak Mahmoudian , Belkis Erbas, Tomris Erbas	European Journal of Internal Medicine	2007 18; 600–602	ISI, Scopus, PubMed, Embase
7	Single Tc99m Sestamibi injection, double acquisition gated SPECT after stress and during low-dose dobutamine infusion: a new suggested protocol for evaluation of myocardial perfusion	Fallahi B, Beiki D, Gholamrezaezhad A, Mahmoudian B , Ansari Gilani K, Eftekhari M, Fard-Esfahani A, Mohseni Z, Saghari M.	Int J Cardiovasc Imaging	2008 Dec; 24(8):825-35. Epub 2008 Jun 18.	ISI, Scopus, PubMed, Embase
8	Evaluation of Serumal Levels of AST, ALT, Total Bilirubin, Glucose, Urea and Creatinin in Mice after Administration of Tc-99m MIBI	Bahram Amouoghli Tabrizi, Meisam Naeimi Kararoudi and Babak Mahmoudian.	International Journal of Animal and Veterinary Advances	2012; 4(1): 68-70	Google Scholar
9	Therapeutic effects of Enhanced External Counter Pulsation (EECP) on clinical symptoms, echocardiographic measurements, perfusion scan parameters and exercise tolerance test in coronary artery disease patients with refractory angina.	Fariba Eslamian, Naser Aslanabadi, Babak Mahmoudian , Seyyed Kazem Shakouri.	Int J Med Sci Public Health.	2013; 2(2): 187-195	Index Copernicus
10	Comparison of different cleaning procedures of implant drills using Tc-99m	Parnia F, Hafezeqoran A, Mahmoudian B , Saati E, Moslehifard E, Koodaryan R, Mahboub F.	Implant Dent	2013 Dec; 22(6):627-30	ISI, Scopus, PubMed
11	Scintigraphic evaluation of abomasal emptying rate in neonatal suckling lambs.	Fartashvand M, Assadnassab Gh, Mahmoudian B , Mohseni M, Afsharfarnia S	Iranian Journal of Veterinary Research	2014; 15(2): 172-175	ISI, Web of Science
12	Intrathoracic Splenosis; A rare false positive cause of somatostatin imaging in characterization of solitary pulmonary nodule	Babak Mahmoudian , Reza Javadrashid, Ashraf Fakhrrjoo. Interesting Image	Clinical Nuclear medicine	2015 Feb; 40(2): 138-140	ISI, Scopus, PubMed, Embase
13	Advances in Pinhole and Multi-Pinhole Collimators for Single Photon Emission Computed Tomography Imaging	Jalil Pirayesh Islamian, AhmadReza Azazrm, Babak Mahmoudian , Esmail Gharapapagh	World J Nucl Med	2015 Jan-Apr;14(1):3-9	PubMed
14	Advances in SPECT for Optimizing the Liver Tumors Radioembolization Using Yttrium-90 Microspheres	Roshan HR, Azarm A, Mahmoudian B , Islamian JP	World J Nucl Med	2015 May-Aug; 14(2):75-80	PubMed
15	Development of Scintillators in Nuclear Medicine	Khoshakhlagh M, Islamian JP, Abedi SM, Mahmoudian B	World J Nucl Med	2015 Sep-Dec; 14(3):156-9	PubMed
16	The Effect of Parallel-hole Collimator Material on Image and Functional Parameters in SPECT Imaging: A SIMIND Monte Carlo Study	Azarm A, Islamian JP, Mahmoudian B , Gharepapagh	World J Nucl Med	2015 Sep-Dec; 14(3):160-4	PubMed
17	A Study on Determination of an Optimized Detector for Single Photon Emission Computed Tomography	Khoshakhlagh M, Islamian JP, Abedi M, Mahmoudian B , Mardanshahi AR	World J Nucl Med	2016 Jan-Apr; 15(1):12-7	PubMed
18	Collimator and energy window optimization for ⁹⁰ Y bremsstrahlung SPECT imaging: A SIMIND Monte Carlo study	Roshan HR, Mahmoudian B , Gharepapagh E, Azarm A, Islamian JP	Appl Radiat Isot	2016 Feb; 108:124-8	ISI, Scopus, PubMed, Embase
19	RET Gene Analysis in Patients with Medullary Thyroid Carcinoma	Kheiroddin P, Rasihashemi SZ, Estiar MA, Mahmudian B , Halimi M, Mousavi F, Nemati	Clin Lab	2016; 62(5):871-6	ISI, Scopus, PubMed, Embase

		M, Sakhinia E			
20	Bone and Lung Metastasis of Papillary Thyroid Carcinoma in 64-Year Old Man	Aghamohammadzadeh N, Najafipour F, Mahmoudian B , Pourlak T and Najafipour M	Int.J.Curr.Res.Aca.Rev	2016; 4(10): 166-172	Chemical Abstract - CAS
21	A Monte Carlo study for optimizing the detector of SPECT imaging using a XCAT human phantom	Khoshakhlagh M, Pirayesh Islamian J, Abedi SM, Mahmoudian B , Shayesteh Azar M	Nucl Med Rev Cent East Eur	2017; 20(1):10-14	PubMed
22	Cadmium Telluride Semiconductor Detector for Improved Spatial and Energy Resolution Radioisotopic Imaging	Abbaspour S, Mahmoudian B , Islamian JP	World J Nucl Med	2017 Apr-Jun; 16(2):101-107	PubMed
23	A study on differentiation of extra-cardiac activity by Slit Slat collimation in Single Photon Emission Computed Tomography	Parvaneh Darkhor, Babak Mahmoudian , Esmaeil Gharepapagh, Seyed Rasoul Zakavi, Jalil Pirayesh Islamian	Iran J Nucl Med	2018; 26(1):22-29	SCOPUS, Web of Science (ESCI), EMBASE, EBSCO, ISC, Index Copernicus, IMEMR, SID,Google Scholar, IranMedex, Magiran
24	A study on drug delivery tracing with radiolabeled mesoporous hydroxyapatite nanoparticles conjugated with 2DG/DOX for breast tumor cells	Mahdihyeh Shamsi, Jafar Majidi Zolbanin, Babak Mahmoudian , Naime Majidi Zolbanin, Leili Aghebati Maleki, Mohammad Asghari Jafarabadi, Jalil Pirayesh Islamian	Nuclear Medicine Review	2018; 21(1): 32–36	ISI (ESCI), Scopus, PubMed, Embase, DOAJ
25	A Monte Carlo study on the performance evaluation of a parallel hole collimator for a HiReSPECT: A dedicated small-animal SPECT	Samira Abbaspour, Kaveh Tanha, Babak Mahmoudian , Majid Assadi, Jalil Pirayesh Islamian	Applied Radiation and Isotopes	2018; 139: 53–60	ISI, Scopus, PubMed, Embase
26	Value of early rest myocardial perfusion imaging with SPECT in patients with chest pain and non-diagnostic ECG in emergency department	Mohammadreza Taban Sadeghi, Babak Mahmoudian , Samad Ghaffari, Payman Moharamzadeh, Alireza Ala, Leili Pourafkari, Shahla Gureishi, Neda Roshanravan, Somayeh Abolhasani, Mahboub Pouraghaei	The international journal of cardiovascular imaging	2019 Jan; 35 (5): 965-971	ISI, Scopus, PubMed, Embase J
27	Evaluation of the Incidence of Chronic Thromboembolic Pulmonary Hypertension 1 Year After First Episode of Acute Pulmonary Embolism: A Cohort Study	Farid Rashidi, Rezayat Parvizi, Eisa Bilejani, Babak Mahmoodian , Fatemeh Rahimi, Ata Koohi	Lung	2020 Feb; 198(1):59-64	ISI, Scopus, PubMed, Embase
28	Diagnostic value of Sestamibi Scan in the preoperative localization of parathyroid lesions in patients with primary hyperparathyroidism.	B Mahmoudian , M Tootoonchian, A Bahrami, Z Khamnian	Journal of Research in Clinical Medicine	2020/12/6; 8 (1), 47-47	

29	Effects of parenteral administration of tylosin and ivermectin on abomasal emptying rate in healthy suckling lambs by use of nuclear scintigraphy	Sajjad Afsharfarnia, Mojtaba Mohseni, Majid Fartashvand, Gholamreza Assadnassab, Babak Mahmoudian	Research in Veterinary Science	2021/1/1; 134,181-185	
30	Diagnostic evaluation of 99mTc-TRODAT-1 SPECT in parkinsonism	Zahra Babaei Aghdam, Safa Najmi Tabrizi, Amin Arasteh, Mohammad Khalafi, Morteza Ghojzadeh, Babak Mahmoudian	Journal of Research in Clinical Medicine	2021/11/29 9(1) 36	
31	Imaging modalities in differential diagnosis of Parkinson's disease: opportunities and challenges	Tohid Mortezaazadeh, Hadi Seyedarabi, Babak Mahmoudian , Jalil Pirayesh Islamian	Egyptian Journal of Radiology and Nuclear Medicine	2021/12 52,1-12	
32	Outcome of surgery for chronic thromboembolic pulmonary disease without pulmonary hypertension	Farid Rashidi, Rezayat Parvizi, Eisa Bilejani, Babak Mahmoudian , Ata Koohi	The Thoracic and Cardiovascular Surgeon	2022/2/2 70(08),658-662	
33	A SIMIND Monte Carlo Simulation Study on CdTe and NaI (TI) Thickness as Detectors of a Small Animal SPECT System	Samira Abbaspour, Babak Mahmoudian , Seyed Rasoul Zakavi, Jalil Pirayesh Islamian	Frontiers in Biomedical Technologies	2022/8/30 Vol. 9, No. 4 (Autumn 2022) 307-315	
34	Single-Center Experience of Pulmonary Endarterectomy for Chronic Thromboembolic Pulmonary Hypertension: The Results from the Tabriz University Medical Sciences (TUMS) CTEPH Program	Rezayat Parvizi, Eisa Bilehjani, Babak Mahmoudian , Ata Koohi, Hooriah Shojaan, Khalil Ansarin, Farid Rashidi	The Thoracic and Cardiovascular Surgeon	2023/1/19	
35	Improvement of Basal Ganglia Detectability in Brain Single Photon Emission Computerized Tomography by Wavelet Transformation in Image Processing Domain: A XCAT Phantom Study	Marzie Saeidikia, Hadi Seyedarabi, Babak Mahmoudian , Jalil Pirayesh Islamian	Frontiers in Biomedical Technologies	2023/5/30 Vol. 11, No. 2 (Spring 2024)	

Research projects:

N	Title	Details
1	A Study on optimizing the collimator of single photon emission computed tomography.	Supervisor of Ahmadreza Azarm for degree of master of sciences in medical physic, Mars 2015
2	A study on determination of an optimized detector for single photon emission computed tomography.	Consultant of Mohammad Khoshakhlag for degree of master of sciences in medical physic. Mars 2015
3	A study on optimizing of the medium energy collimator for quantitative imaging with 90Y in SPECT imaging	Consultant of Hoda Rezaei Roshan for degree of master of sciences in medical physic. November 2015
4	A Study on the targeted uptaking of Tc-99m Radiolabeled 2DG/DOX conjugated nanoparticles in breast tumor cells for SPECT imaging	Consultant of Mahdiah Shamsi for degree of master of sciences in medical physic. January 2017
5	Evaluation the sensitivity and spatial resolution of image using semiconductor CdTe detector in single photon emission computed tomography imaging	Consultant of Samira Abbaspour for degree of master of sciences in medical physic. January 2017
6	Evaluating of a suitable hole angle in slit slit collimator to differentiate lower heart activity from sub-diaphragmatic organs in single photon emission computed tomography	Consultant of Parvaneh Darkhor for degree of master of sciences in medical physic. November 2017
7	Evaluation of diagnostic value of fused Tc-99m TRODAT-1 SPECT on MRI in differentiation of parkinsonism	Supervisor for doctorate thesis for MD degree, held by Zahra Babaei Aghdam, Student of Medicine, 1397/05/07
8	The diagnostic accuracy of TC99m-EDDA/HYNIC-TOC scintigraphy in differential diagnosis of undifferentiated pulmonary nodule	Supervisor of Dr Roya Mashayekhi, MD, for degree of specialist of Radiology 1398/03/07
9	Improvement of basal ganglia detectability in NCAT Phantom Brain SPECT by wavelet Transformation in Image	Consultant of Marziyeh Saeidi Kia for degree of master of sciences in medical physic 1398/03/12
10	Evaluation of diagnostic accuracy of Sest-amibi Scan for preoperative localization of affected parathyroid gland in patients with primary hyperparathyroidism	Supervisor of Dr Mitra Tootoonchian, MD, for degree of specialist of Internal Medicine 1398/07/09

11	Prevalence of Cardiac Amyloidosis in Patients with Aortic Valve stenosis by strain echocardiography	Supervisor of Dr Samira Jafari Sis, MD, for degree of specialist of cardiology 1398/08/08
12	Diagnostic Accuracy of Offline Lung Perfusion SPECT/CT in Diagnosis of Pulmonary Embolism	Supervisor for doctorate thesis for MD degree, held by Hesam Arianpour, Student of Medicine, 1398/09/23
13	Evaluation on the effect of Wolfmet collimator on the detectability of SPECT imaging system	Consultant of Maryam Daremi for degree of master of sciences in medical physic. 1399/02/07
14	Evaluation the diagnostic value of Tc-99m MIBI SPECT in differentiation of brain masses	Supervisor for doctorate thesis for MD degree, held by Shahin Talaei, Student of Medicine, 1399/02/15
15	Determination of the first site of spine involvement in vertebral column metastases with MRI	Consultant of Dr Ali Sadin, MD, for degree of specialist of Radiology. 1399/02/15
16	Diagnostic value of low dose dobutamine gated SPECT in detection of myocardial viability and short-term prognosis following CABG in heart failure patients	Supervisor for doctorate thesis for MD degree, held by Safa Mohammad Ghasem Nejad, Student of Medicine, 1399/05/22

Positions held: (past- current)

Start and End Date	Job Title, Responsibilities and achievements
1 October 2007 till now	Founder and technical responsible of Tabriz Gamma Scan, Nuclear Medicine Center, Tabriz, IRAN
4 June 2016 till now	Technical Responsibility of Division of Nuclear Medicine of Imam Reza Hospital of Medical Faculty of Tabriz University of Medical Sciences

Association Memberships (past and current)

Start and End Date	Job Title, Responsibilities and achievements
October 1995 is continued	Member of Iranian Medical Council
Oct 2000 is continued	Member of European Association of Nuclear Medicine
Oct 2000 till Oct 2006	Member of Turkish Society of Nuclear Medicine
October 2004 is continued	Member of Iranian Society of Nuclear Medicine
May 2017 is continued	Member of "Radiation Sciences Research Team" of Tabriz University of Medical Sciences

Awards and Recognitions

Start and End Date	Details
May 2013 – Dec 2013	First rank of national research publication in prosthetic dentistry, during 13th annual dental symposium in the memory of martyr Ahmad Hedayat held in Tehran at 8 May 2014 titled: Comparison of different cleaning procedures of implant drills using Tc-99m Perchnetate. Parnia F, Hafezeqoran A, Mahmoudian B , Saati E, Moslehifard E, Koodaryan R, Mahboub F. Implant Dent. 2013 Dec;22(6):627-30