

In the name of God

Personal & Contact information

Name: Bita
Surname: Mehravi, Ph.D.
Birth Place: Tehran, Iran
Status: Married
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Education:

Ph.D. in nanomedicine, Shahid Beheshti University of medical science Tehran, Iran, Sep. 2013
. Ph.D. thesis title: Design and Synthesis of Glycosiated Gd³⁺ based Silica Mesoporous Nanospheres as contrast enhancer for MR images in Cancer Detection

Research Supervision:

• **Supervisor of M.Sc. thesis**

1- Designs and synthesis of cysteine modified silica encapsulated Gd nanoparticles as contrast agent for imaging of breast cancer cells by MRI, Department of Medical nanotechnology, faculty of advanced technology in Medicine, Iran University of Medical Sciences, Tehran, Iran, Feb. '15- present.

2-Design and synthesis of glycosylated Nanoprobe for stem cell tracking Department of Medical nanotechnology, faculty of advanced technology in Medicine, Iran University of Medical Sciences, Tehran, Iran

3- Design and synthesis of nanoparticles loaded with Diphenylcyclopropanone for target delivery to hair follicle Department of Medical nanotechnology, faculty of advanced technology in Medicine, Iran University of Medical Sciences, Tehran, Iran

4-Design and synthesis of functionalized Low- Density Lipoprotein Nanoparticles for detection of cancer in early stages by MRI Department of Medical nanotechnology, faculty of advanced technology in Medicine, Iran University of Medical Sciences, Tehran, Iran

5- Design and synthesis of a biocompatible nanocarrier for ocular drug delivery, Department of Medical nanotechnology, faculty of advanced technology in Medicine, Iran University of Medical Sciences, Tehran, Iran

• **Advisor of PhD.** thesis in drug delivery into cancer cells, Tarbiat Modares University, Tehran, Iran, Jun. '12- present.

• **Supervisor of PhD. thesis**

- Early imaging of cancer cells with foliconanoprobe contrast agent using MRI Tajik National University)
- Design and synthesis of lipid nanoparticles attached to Gd for the early detection of breast cancer (

: Boosting effects of lactic co-glycolic acid nano-polymer on molecular imaging of cancer cells relative to the radiopaque Gadoboltril (Tehran University of Medical Sciences

Thesis advisor: Manganese and iron nano-complexes designed to treat breast cancer (Semnan university)

Awards & Honor

- Top student and ranked first among fellow students in the same field of study (in all periods)

- **Top student** in Beheshti University of Medical Sciences
 - Selected in “Doctor Vosugh” Educational Festival (Top educational professor in 2015)
 - Selected in “Doctor Motahari” Educational Festival of (2015)
 - Ranked **top professor** in Medical School of Advanced Technologies
 - Ranked first in board examination
 - Ranked first in PhD
 - **Top Student of the Year 1390** at shahid beheshti university of medical sciences
 - Earn top ranking among universities in the field of medical nanotechnology in PhD at shahid beheshti university of medical sciences
 - Top Employee in UAST University

Work & Teaching experience:

- Postdoctoral research in nanobiotechnology, Tarbiat Modares University, Tehran, Iran, June. '12- June. '13. Postdoctoral project title: Gold nanorods functionalized anticancer peptides: synthesis, characterize and cytotoxicity effect on cancer cells
 - Researcher in drug monitoring, Curie Institute, Paris, France, June. '12 – Sep. '12.
 - Researcher in electro-biochemistry, Lund University, Lund, Sweden, Apr. '11 – Sep. '11.
 - Certificate of academic-training, Tarbiat Modares University, Iran, Feb. '12.
 - Teaching assistant of “nanomaterial&nanostructure in nanotechnology”, Iran University Medical Science, Iran, Dec. '14.
 - Teaching assistant of “basic of Nanotechnology in medicine”, Iran University Medical Science, Iran, Dec. '13-present.
 - Rayan Besat cooperative educational services teacher of “Computer Using”, Karaj, Iran, Mar. '06- Mar. '06.
- Workshop:
- Manager of Proteomics

Workshop:

- Manager of Proteomics Workshop, Tarbiat Modares University, Iran, 3-4 June. '13. 2
- Certificate of Iran-Korea Nanotechnology Workshop, Tarbiat Modares University, Iran, 2-3 Oct. '12.
 - Certificate of Biosensore Workshop, 9th Student Congress on Nanotechnology, Tarbiat Modares University, Iran, 4 Mar. '12.
- **Patent (Tehran University of Medical Sciences)**
- **Patent (Iran University of Medical Sciences)**
- **International Congress on the Introduction to the WIPO and PCT**
- CTD Preparation and writing workshops
- Water Validation in pharmaceutical products workshop
- Workshop on Pharmaceutical documentation
- Workshop on Pharmaceutical GMP
- Build and Test of Catalyst (in Lyon, France)
- Design of Experiments with Taguchi Method
- Gaussian Software
- Fire Stations and safety
- Design Laboratory Reactors
- Determine the kinetics of chemical reactions
- Work with the electron microscope (in France and in Iran)
- GC education
- Workshop on Research Methodology
- Workshop on teaching methods
- Strategic management workshop

- Workshop on Portal education
- Research Management workshop
- Workshop on article writing
- END NOTE Workshop
- EDU workshop
- Knowledge translation workshops
- Workshop on from Thesis to industry
- Workshop on creative marketing ideas
- International congress on neurontology and neuroprotection
- Congress on Medical Ethics
- Workshop on phraseology
- Workshop on phraseology

Publications:

- **Influence of porosity and pore volume on mitochondria toxicity of silica nanoparticle,**
Authors: P. Naserzadeh, K. Ashtari, **B. Mehravi**
ACS nano, submitted (2016)
- Evaluation of chronic toxicity of glycosylated magnetic nanoparticle, Toxicity,
Authors: P. Naserzadeh, **B. Mehravi**, K. Ashtari,
submitted (2016)
- **Enhanced Direct Electron Transfer through a Positively Charged Surface of Cellobiose Dehydrogenase Modified Gold Nanorod,**
Authors: K. Ashtari, N. Baden, **B. Mehravi**, M. Mirzayi, L. Gorton
PLOS one, submitted (2016).
- **Conjugation of glucosamine on Gd³⁺ based nanoporous silica using heterobifunctional crosslinker (ANB-NOS) for cancer cell imaging.**
Authors: **Mehravi B**, Ahmadi M, Amanlou M, Mostaar A, Ardestani MS, Negar Ghalandarlaki.
International Journal of Nanomedicine. 2013:8, 3383–3394.
- **Cellular Uptake and Imaging Studies of Glycosylated Silica Nanoprobe (GSN) in Human Colon Adenocarcinoma (HT 29 Cell line).**
Authors: **Mehravi B**, Ahmadi M, Amanlou M, Mostaar A, Ardestani MS, Negar Ghalandarlaki.
International Journal of Nanomedicine. 2013:8, 3209-3215.
- **Gd³⁺-DTPA-DG: novel nanosized dual anticancer and molecular imaging agent.**
Authors: Amanlou M, Siadat SD, Ebrahimi S ES, **Mehravi B** et al.
International Journal of Nanomedicine. 2011: 6, 747-763.
- **Novel Molecular Anti-colorectal cancer conjugate: chlorambucil-Adipic acid Dihydrazide-Glutamine**
Authors: Maryam Akhavan Tabasi, Massoud Amanlou, Seyed Davar Siadat, **Bitamehravi**, et al.
Anti-cancer Agents in Medicinal Chemistry. 2013: 13, 1-11.
- **Gd³⁺-DTPA-Meglumine-Anionic Linear Globular Dendrimer G1: Novel nanosized low toxic tumor molecular MR imaging agent**
Authors: Tahmineh Darvishmohamadi, Massoud Amanlou, Negar Ghalandarlaki, **Bitamehravi** et al.
ISRN Pharmaceutics. 2013: 13, 1-14
- **Nano-scaled Diethylene Triamine Pent Acetic Acid (N-DTPA): Novel Anti-Wilson's Disease Cell Model**
Authors: Saba Zakeri, Ehsan Afzal1, Parichehr Yaghmaei, Mehdi Mirzaei, **Bitamehravi**, Mohammad Reza Aghasadeghi, Massoud Amanlou
American Journal of Biomedical Science. 2012: 4(3), 204-219
- **Diethylentriaminepentaacetic Acid-deoxyglucosamine (DTPA-DG): Novel Nanosized Anti-Wilson's Disease Cell Model**
Authors: Mojgan Mashayekhi, Massoud Amanlou, Kourosh Sadeghi, Mona Mosayebniya, Mehdi Shafiee

Ardestani, **Bita Mehravi**

American Journal of Biomedical Science. 2013; 5(1), 34-46

- **Gd³⁺ -DTPA-bis (N-methylamine) – Anionic Linear Globular Dendrimer-G1; A More Efficient MRI Contrast Media**
Authors: N. Ghalandarlaki , T. D. Mohammadi , R. Agha Babaei , M. A. Tabasi , **B. Mehravi** , et al.
Drug Research. 2013; 63, 1–9
- **Breast cancer cells imaging by targeting methionine transporters with Gadolinium-based nanoprobe**
Authors: **Bita Mehravi**, Mehdi Shafiei Ardestani, Maryam Damercheli, Haleh Soltanghoreae, Negar Ghanaldarlaki, **Ali M.** Alizadeh, Mohammad A. Oghabian , Maryam Shahzad Shirazi, Shabnam Mahernia and Massoud Amanlou
Molecular Imaging and Biology
- **Synthesis and development of MSN-Gd³⁺-C595 as MR imaging contrast agent for prostate cancer cell imaging**
Authors: **Bita Mehravi**, Mehdi Mirzaei, Seyed Amir Mohsen Ziaee, Mehdi S. Ardestani, Massoud Amanlou
Current Molecular Imaging, 2014, 3, 43-51
- **In vivo and in vitro toxic – pathological evidences of Gd³⁺ - ALGDG2-C595**
Authors: Mehdi Mirzaei, M A Mohagheghi, S M Tavangar, **B Mehravi**
Nature nanotechnology
- **Cellular uptake, imaging and pathotoxicological studies of a novel Gd[III]–DO3A-butrol nano-formulation**
Elham Mohammadi, Massoud Amanlou, Seyed Esmaeil Sadat Ebrahimi, Morteza Pirali Hamedani, Abdolkarim Mahrooz, **Bita Mehravi**
RSC Adv., 2014,4, 45984-45994
- **MRI Physical Relaxivity Study of Novel Gd³⁺ based dendrimeric- C595 conjugate as Early Detective Cancer Imaging Agent**
Authors: Mehdi Mirzaei, Mohammadali Mohagheghi, Mohsen Ahmadi, **Bita Mehravi**, Ahmad Mostaar
ISRN Pharmaceuticals, in press
- **In Vitro evaluation of Gd³⁺- anionic linear globular dendrimer-Monoclonal Antibody: Potential Magnetic Resonance Imaging Contrast Agents for prostate cancer cell imaging"**
- **Authors:** Mehdi Mirzaei, **Bita Mehravi**
Molecular Imaging & Biology.(2015) in press
- Targeted imaging of prostate cancer cells by Gadolinium-Mesoporous Silica Nanosphere conjugated to Antibody C595
- **Authors:** **Bita Mehravi**, Mehdi Mirzaei, Amir Mohsen Ziaei
Molecular Imaging & Biology.(2015) in press
- **Piperazine and its carboxylic acid derivatives-functionalized mesoporous silica as nanocarriers for gemcitabine: Adsorption and release study**
Authors: Zohreh Bahrami, Alireza Badieli, Fatemeh Atyabi, Hossein Reza Darabi, **Bita Mehravi**
Materials Science and Engineering C 49 (2015) 66–74
- **Extraction and purification of Kellinand Visnagin from Ammi- Visnaga",**
Authors: Abolhassani. M., Mehravi, B.
2002 همایش بین المللی گیاهان دارویی ایران
- **Distribution Measurements in Pt-Sn-In/Al₂O₃ Catalysts With electro microprobe** **Authors:** Mehravi; B., Sahebdel far,S.; Hakamizadeh, M.,
Chemical and chemical engineering congress,1384.
- **New salen- type manganese(III) Schiff base complexes derived from meso-1,2-diphenyl-1,2-ethylenediamine: In vitro anticancer activity, Mechanism of action and Molecular docking studies**
Journal of Coordination Chemistry 2015 in press

- **Piperazine and its carboxylic acid derivatives-functionalized mesoporous silica as nanocarriers for gemcitabine: Adsorption and release study**

Materials Science and Engineering C 49 (2015) 66–74

In Vitro evaluation of Gd³⁺- anionic linear globular dendrimer-Monoclonal Antibody: Potential Magnetic Resonance Imaging Contrast Agents for prostate cancer cell imaging

Molecular Imaging & Biology DOI: 10.1007/s11307-015-0841-9.(2015)

Patents

- Design and synthesis of gadolinium based nanoparticle conjugated to C595 for cancer prostate cancer in early stages (Iranian patent)۱۳۹۳۵۰۱۴۰۰۰۳۰۰۴۲۱۴
- Early imaging of cancer cells with foliconanoprobe contrast agent using MRI (Eurasia patent)
- design and synthesis of folico nanoprobe for cancer diagnostic in early stages (US PATENT) filing)

Book

- Gas to liquid (GTL) 2005
- Petrochemical catalyst (2005)
- Application of polymer in nanomedicine (2016)
- **Innovation in education in Iran university(2016)**
- **Patent fundamental for medical science: in press**

Conference proceedings

- Preparation of Dehydrogenation catalyst in Iran, IFP , France , 2004
- Pilot Plant Test for C10-C14 N-paraffin dehydrogenation unit, IFP , France , 2005
- 2005
- Eleventh Conference of Medical Physics
- Seminar on challenges and opportunities for knowledge translation management
- Speech at the Eleventh Congress of Toxicology
- Lecture on knowledge translation workshops (5 lectures)
- Seminar patents and intellectual property (especially for the faculty members)
- Seminar patents and intellectual property (especially for students)
- International seminars and meetings on neuroethology and neuroprotection
- Congress of nanotechnology applications in the treatment and disease diagnosis
- Efficient Cancer cell Diagnostics by Functionalized Gold Nanorods
- Gold nanoparticles enhanced computed tomography imaging technique
- Influence of surface characteristics of silica nanoparticles on mitochondria toxicity
- The impact of nanoparticle on stemcell differentiation in tissue engineering
- Nanoparticle based stem cell tracking in tissue engineering
- Virtual lecturing in nanomedicine: delivery lectures using screen casting technology

Managing and directory

- **Director of the Office of Patents, innovation and intellectual property: Iran University of Medical Sciences**
- **Director of innovation center in Iran medical university of medical science**
- Head of the Technology Committee of Medical Students: IUMS
- Director of the Office of Medical Education: Iran University of Medical Sciences School of Advanced Technologies
- Secretary of the Working Group on the development of training packages (Innovation in Education)
- Promotions committee secretary: Iran University of Medical Sciences School of Advanced Technologies
- Nanotechnology Group Research Deputy of Iran University of Medical Sciences
- Nanobiotechnology Research Deputy of Iran University of Medical Sciences
- Scientific secretary of the nanotechnology applications in medical imaging two-day workshop: Iran University of Medical Sciences
- Deputy Director for Research at Jame university
- Director of the Department of Chemistry at Jame university
- Director of portal site Research Management
- Expert in textbooks codification

Miscellaneous skills:

- **patent analysis**
- **Set up of innovation in medical science center**
- Preparation and characterization of nanostructures and nanoparticles
- Molecular Imaging
- Contrast Agent synthesis
- Microfluidic systems.
- Nanobioconjugate chemistry.
- Design and preparation of Nano kit.
- Surface modification of nanoparticles.
- Peptide synthesis with SFE method.
- Mammalian cell culturing.
- Instrumental analysis; Cyclic voltammetry, ICP/AES, AAS, Spectrofluorimetry, SEM, AFM, FTIR,