Curriculum Vitae

Name: Seyed Mohammad Amini
Date of birth: 1 February 1986
Gender: Male
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Education

2012-2016

- PhD Medical Nanotechnology, Tehran University of Medical Sciences, School of Advanced Technologies in Medicine, Tehran, Iran

2008– 2012

- M.Sc. Student of Medical Nanotechnology, Tehran University of Medical Sciences, School of Advanced Technologies in Medicine, Tehran, Iran

2004 – 2008

- B.Sc. of Radiology, University of Medical Sciences (TUMS), School of Allied Medical Sciences, Tehran, Iran.

Research interests

- Applications of Nanomaterial in Medicine and Medical Diagnosis.
- Applications of Nanotechnology in Antibacterial Application.
- Nanotechnology in Cancer Treatment Including Photothermal Therapy, Photo Dynamic Therapy, Chemotherapy and Radiotherapy
- Nano Toxicology
- Tissue engineering

Thesis title & research project

- Gold nanoparticles loaded nanoliposomes for RF modulated delivery of anticancer agent

Supervisors: Dr. Sharmin kharrazi (Assistant prof. TUMS)
Prof. Jafari (dean of Nanomedicine research center, mashhad university of medical sciences)
Advisors: Prof. Dinarvand (Dean of pharmacological school TUMS), Prof. Seyed Mehdi Rezayat (Prof of Pharmacology and toxicology Tums)

- The role of Gold Nanoparticle on photodynamic efficiency of 5-ala photosintetizer in epidermal carcinoma cell line: an in vitro study

Supervisor: Reza Saber
Advisor: Sharmin kharrazi

Scientific Publication

Articles:

- **Effect of gold nanoparticles on photodynamic efficiency of 5-aminolevolenic acid photosensitiser in epidermal carcinoma cell line: an in vitro study,** Journal of Nanobiotechnology (Volume 7, Issue 4, 2013, p. 151 – 156)
- **Safety of Nanotechnology in Food Industries,** Electronic physician (Volume 6, Issue 4, October-December 2014)
- **Comparison of Gold Nanoparticle Conjugated secondary Antibody with Non Gold Secondary Antibody in an ELISA Kit Mode,** Monoclonal Antibodies in Immunodiagnosis and Immunotherapy (Vol. 34, Issue. 4, pp. 201-304)
- **Fast and effective photodynamic inactivation of 4-day-old biofilm of methicillin resistant-Staphylococcus aureus using methylene blue-conjugated gold nanoparticles,** Journal of Drug Delivery Science and Technology (2017, Vol. 37, p. 134-140)
- **Radio Frequency Hyperthermia of Cancerous cells with Gold Nanoclusters: An in vitro investigation,** Gould Bulletin (2017, Volume 50, Issue 1, pp 43–50)
- **Curcumin coated Gold nanoparticles: Their synthesis, characterization, cytotoxicity and antioxidant activity**, Nanomedicine Journal (Volume 4, Issue 2, Spring 2017, Page 115-125)

International Conference Papers:

- **Investigations on the effect of Gold Nanoparticles' size on Photodynamic Efficiency of 5-Aminolevolenic acid,** 5th International Conference on Nanostructures (6-9 March 2014, p. 110-112)
- **Gold Nanoparticles Loaded Nanoliposomes for RF-EF Modulated Delivery of Anticancer Agent,** 2th Middle East/ 7th Iranian Control Release Conference (21-23 Feb 2017, p. 17)
- **Cytotoxic Effect of Gold Nanoparticles on Epidermal Carcinoma Cell Line in Photodynamic Therapy.** Journal of Pharmaceutical & Health Sciences (1th, Iran NanoSafety Congress, Volume 2, Issue 4. Summer 2014, p193)

*-----**Submitted** or **under review for submission articles**------*

- Experimental Study in Radiofrequency Electric-Field hyperthermia Efficacy of Gold Nanostructures**,** (*Submitted*)
- Electrolyte Concentration: An Ignored Factor in The Electrostatic Binding of gold Nanoparticle to Antibody, *(Submitted).*
- Larvicidal activity of chemical synthesized silver nanoparticles against Anopheles stephensi, *(Submitted).*
- Construction of Genetically Engineered M13K07 Helper Phage for Simultaneous Display of Gold Binding Peptide 1 and Nuclear Matrix Protein 22 ScFv Antibody, *(Submitted).*
- Prenatal exposure to low dose Silver nanoparticles induced behavioral abnormalities in adult male offspring's; Involvement of mitochondria and innate-immunity *(Submitted).*
- Evaluation of size, morphology and surface effect of gold nanoparticles on x-ray attenuation in Computed Tomography *(Submitted).*
- Gold cluster encapsulated liposomes: Theranostic agent with stimulus triggered release capability (*Under review for submission*).
- Measurement of Concentration of Kim-1 Biomarker Based on Surface Plasmon Resonance of Antibody Conjugated Gold Nanoparticles for Detection of Kidney Injury (*Under review for submission*).
- Investigation of Melphalan Interaction as an Alkylating Agent with Nucleotides by Using Surface Enhanced Raman Spectroscopies (*Under review for submission).*

- Gold Nanorods-augmented Photothermal effect of diode laser on corneal stroma: a preliminary study *(Under review for submission)*.

Technical experiences

- Spectroscopy (UV-visible)
- Microscopy (STM)
- DLS & zeta potential
- Polymeric, Metal and Metal Oxide Nanoparticles synthesis & characterization
- Designing a Liposomal Delivery Carrier for Anticancer Agent
- PCR
- Photothermal Therapy
- Photodynamic Therapy
- Radiofrequency Electric Field Hyperthermia.
- Cell Culture and Cell Cytotoxicity Analysis (MTT, LDH).

Research experiences & Participation

- Concentration Evaluation of NGAL Based on Surface Plasmon's Resonance of Antibody Conjugated Gold Nanoparticles

- Synthesis of Gold Nanoparticles Using Curcumin and Investigation Their Antioxidant Effect on RIN-5F Cell Line Under Induction of Diabetes Conditions

- In vitro Investigation of Surface Coating Effect of Gold Nanoparticles and Nanorods on Cell Viability

- Gold Nanorods Enhanced Thermal Effect on Corneal Tissue During Laser Irradiation; Ex Vivo Study

- Heart Allograft Rejection Test, Design and Survey on the Basis of mir-155, mir-133b and mir326, Evolution on the basis of l Localized Surface Plasmon Resonances and Real Time PCR

- Investigation of Melphalan Interaction as an Alkylating Agent with nucleotides by using Surface Enhanced Raman Spectroscopy (SERS)

- Concentration Evaluation of Kim-1 Biomarker Based on Surface Plasmon resonances of Antibodies conjugated Gold Nanoparticles for Detection of Renal Disorders.

Persian Language Articles in Iranian Nanotechnology Initiative Council Journal:

- Non Viral Gene transfection
- Nanoreactors
- Hyperthermia
- Magnetic Hyperthermia
- Photodynamic Therapy
- Nannotechnology Application in Photodynamic Therapy

Hobbies and Interests

- I was exercising wrestling and soccer professionally until 2008. Currently I`m enjoying swimming and mountain climbing as a fun and light sport. I am very happy to coaching young athletes in futsal or soccer team.
- I`m big fan of classical Persian poetry and have been interacting with different Iranian culture through many trips all over the country. I`m very interested in western philosophy and sociology. Some other hobbies such as watching movies, visiting friends and family, reading and writing will take my time.

Awards

- Ranked Second among all participants nationwide in the National Entrance Ph.D Exam of Medical Nanotechnology, Iran, *February 2012*
- Ranked Fifth among all participants nationwide in the National Entrance M.Sc Exam of Medical Nanotechnology, Iran, *June 2009*
- Ranked Third among all participants nationwide in the National Entrance Exam of Bachelor Degree Radiology, Iran, *June 2007*
- Ranked First in Comprehensive Exam 2014 among Medical Nanotechnology PhD Student.
- Ranked Seventh among all participants nationwide in the National nano National Competition, Iran, *June 2012*
- Achievement of Honor of Award for the Nano-Related Dissertations “Iranian Nanotechnology Initiative Council” for my M.S thesis.

Participation in International Congress

Iran Nanosafety Congress, (10-20 Feb) 2014, Tehran University of Medical Sciences, Poster Presentation.

5th International Conference on Nanostructures, (6-9 March) 2014, Sharif University of Technology , Poster Presentation.

7th Asia Nanotech Camp (ANC2014), (9-11 Oct) 2014, Asia Nano Forum, Lecture & Poster Presentation.

Teaching experiences:

- Drug delivery using nano particles
- Introduction of nanotechnology For Nurse Students
- Introduction of nanotechnology For High school Students
- Nanotechnology applications in Cancer Treatment
- Medical Nanotechnology Application
- Introduction on Nanomaterials

Computer Skills

- Origin
- Graph Pad Prism
- End Note (intermediate)
- Microsoft Office (Word, Power point, Excel)
- Adobe Acrobat Professional

Editorial Board:

- **Editorial Board of Journal of Experimental Nanoscience**
- **Editorial Board of Journal of Nanomedicine Research Journal**

Referee

- **Dr. Saharrmin Kharrazi, Assistant professor (Superviser)**

Email: Sh-kharrazi@tums.ac.ir

- **Prof. Mahmoodreza Jaafari (Adviser),**

Email: JafariMR@mums.ac.ir

- **Dr. Amir Amani, Asosiated prof, (Head of Medical Nanotechnology Department)**

Email: aamani@tums.ac.ir