

Fakhrossadat FARVADI

Pharm.D. PhD. Nanomedicine Scientist

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Education

Ph.D. in pharmaceutical nanotechnology (2012-2018)

Tehran University of Medical Sciences, School of Pharmacy, Tehran, Iran

Thesistitle: "Development of an *in-vitro* Model Using Cell-Imprinted Substrates for Investigation of Cyto and Genotoxicity of Gold Nanoparticles"

GPA: 4 (95.6% (A))

Pharm.D. (2004-2011)

Shiraz University of Medical Sciences, School of Pharmacy, Shiraz, Iran

Thesistitle: "Development and characterization of PEG-g-PEI modified SWNT by polyioniccomplexation for a pH-sensitive and sustained delivery of doxorubicin".

GPA: 4 (93% (A))

Honors and Awards

2019	Short-listed for the <i>Martyr Dr. Shahriari</i> award By National institute of Elites (BMN)
2012-2018	PhD scholarship Granted by <i>Iran Ministry of Health and Medical Education</i>
2018	1st top student In the PhD academic course
2015	Silver medal winner "Tai chi" wushu national championship
2014	1st top student In the specialized comprehensive exam (Board)
2012	1strank In the Ph.D. national entrance exam
since 2011	Member of "National Institute of Elites (BMN)"
2010	Best Young Scientist Award 12 th Iranian pharmaceutical science congress, Zanjan, Iran
2010	Premier alumnus of pharmacy school Shiraz University of Medical Sciences
since 2009	Topnotch member of Office of Talented Students Shiraz University of Medical Sciences
2007	2ndtop student In the national Comprehensive Basic Sciences Exam
2004-2010	1st top student In the Pharm.D. academic courses
2002	Bronze medal winner "Chang chuan" wushuprovincial championship

Urgent need to improve the safety of chemotherapy ward personnel in hospitals

F Farvadi, MJ Raee

Trends in Pharmaceutical Sciences, 2022

Composite silk fibroin hydrogel scaffolds for cartilage tissue regeneration

Z Montaseri, SS Abolmaali, AM Tamaddon, F Farvadi

Journal of Drug Delivery Science and Technology, 2022

Where are nanomaterials going? The necessity of safe disposal of nanowastes

F Farvadi, MJ Raee

Trends in Pharmaceutical Sciences, 2022

Where are nanomaterials going? The necessity of safe disposal of nanowastes

F Farvadi, MJ Raee

Trends in Pharmaceutical Sciences, 2022

Antimicrobial safety considerations in critically ill patients: part I: focused on acute kidney injury

F Shahbazi, L Shojaei, F Farvadi, S Kadivarian

Expert Review of Clinical Pharmacology, 2022

Antimicrobial safety considerations in critically ill patients: part II: focused on anti-microbial toxicities

F Shahbazi, L Shojaei, F Farvadi, S Kadivarian

Expert Review of Clinical Pharmacology, 2022

Potential nephroprotective effects of resveratrol in drug induced nephrotoxicity: a narrative review of safety and efficacy data

F Shahbazi, F Farvadi, S Dashti-Khavidaki, S Ataei, L Shojaei

Advances in Traditional Medicine, 2020

Rapid and specific chromatography method on monolithic RP-column for determination of high-dose methotrexate pharmacokinetics in sera of cancer patients admitted to Shiraz Amir ...

L Shojaei, F Farvadi, S Zareifar, S Abolmaali, S Namazi, A Tamaddon

Trends in Pharmaceutical Sciences, 2020

Homeopathy and Nanomedicine: Alien twins

F. Farvadi, F. Hashemi

Homeopathy, 2019

Laser irradiation affects the biological identity and cellular uptake of plasmonic nanoparticles

F.Hashemi, M.R.Hormozi-Nezhad, C. Corbo, F. Farvadi, M.A.Shokrgozar, M.Mehrjoo, F.Atyabi, M.H.Ghahremani, R. Dinarvand, M. Mahmoudi

Nanoscale, 2019

Cell Shape Affects Nanoparticle Uptake and Toxicity: An Overlooked Factor at the Nanobio Interfaces

F. Farvadi, M.H. Ghahremani, F. Hashemi, M.R. Hormozi-Nezhad, M. Raoufi, S. Zanganeh, F. Atyabi, R. Dinarvand, M. Mahmoudi

Journal of colloid and interface science, 2018

Bare surface of gold nanoparticle induces inflammation through unfolding of plasma fibrinogen

B. Kharazian, S. Lohse, F. Ghasemi, M. Raoufi, A.A. Saei, F. Hashemi, F. Farvadi, R. Alimohamadi, S.A. Jalali, M.A. Shokrgozar, N. Hadipour, M.R. Ejtehad, M. Mahmoudi
Scientific reports (Nature Publishing Group), 2018

Misinterpretation in Nanotoxicology: A Personal Perspective.

A.M. Alkilany, N.N. Mahmoud, F. Hashemi, M.J. Hajipour, F. Farvadi, M. Mahmoudi
Chemical Research in Toxicology (ACS), 2016

Polyionic complex of single-walled carbon nanotubes and PEG-grafted-hyperbranchedpolyethyleneimine (PEG-PEI-SWNT) for an improved doxorubicin loading and delivery: development and in vitro characterization.

F. Farvadi, A.M. Tamaddon, Z. Sobhani, S.S. Abolmaali
Artificial Cells, Nanomedicine, and Biotechnology, 2016

Micellar stabilized single-walled carbon nanotubes for a pH-sensitive delivery of doxorubicin.

F. Farvadi, A.M. Tamaddon*, S.S. Abolmaali, Z. Sobhani, G.H. Yousefi
Research in Pharmaceutical Sciences, 2014

Development and Validation of a rapid and simple HPLC-UV Method for the Analysis of Sorafenib in the Presence of Polyamidoamine (PAMAM) Dendrimers.

F. Hashemi, A.M. Tamaddon*, Gh. Yousefi, F. Farvadi
Journal of Liquid Chromatography & Related Technologies, 2012

Pharmaceutical Nanoemulsions and Their Potential Topical and Transdermal Applications.

S. S. Abolmaali, A. M. Tamaddon, F. Farvadi, S. Daneshamuz, H. Moghimi
Iranian Journal of Pharmaceutical Science, 2011

Conference Papers & Talks

What is the disease; holistic vs. reductionist vision

F. Hashemi, F. Farvadi, M. Mahmoudi, The 1st international USERN Congress & USERN Prize Festival, USERN junior talk, Tehran, Iran (2016)

Nanoparticles' Interferences with Cytotoxicity Assays

F. Farvadi, F. Hashemi, R. Dinarvand, M. Mahmoudi, the 14th Iranian Pharmaceutical Sciences Congress (IPSC), Tehran, Iran (2015)

PEG-grafted Hyperbranched Polyethyleneimine-Oxidized Single Walled Carbon Nanotube Complex (PEG-PEI-SWNT) For Sustained Delivery of Doxorubicin

F. Farvadi, A.M. Tamaddon, F. Hashemi, *Nanomaterials: Application and Properties*, Vol. 1, No 2, Crimae, Ukraine (2012)

Effect of pH on Solubilisation of Practically Insoluble Sorafenib by Classic and Stealth Polyamidoamine (PAMAM) Dendrimers and -cyclodextrin

F. Hashemi, A.M. Tamaddon, G.H. Yousefi, F. Farvadi, *Nanomaterials: Application and Properties*, Vol. 1, No 2, Crimae, Ukraine (2012)

Comparison of dioleoylphosphatidylethanolamine-polyethylene glycol(DOPE-PEG) and sodium deoxycholate micelles on stabilization of short single-walled carbon nanotubes for doxorubicin loading and delivery

F. Farvadi, A.M. Tamaddon, F. Hashemi. *Research in Pharmaceutical Sciences*, Isfahan, Iran (2012)

Effect of PH on the solubility of practically insoluble sorafenib by comparing polyamidoamine (PAMAM) dendrimers with β -cyclodextrin

F. Hashemi, A. Tamaddon, G. Yousefi, **F. Farvadi**. Research in Pharmaceutical Sciences, Isfahan, Iran (2012)

PEG-grafted Hyperbranched polyethyleneimine-oxidized Single-Wall Carbon Nanotubes (PEG-PEI-SWNT) for a sustained delivery of doxorubicin

A.M. Tamaddon, **F. Farvadi**, S.S. Abolmaali, Z. Sobhani, Colloids and nanomedicine, Amsterdam, Netherland (2012)

PEGylation of oxidized single-walled nanotubes for sustained and pH-sensitive delivery of doxorubicin

A.M. Tamaddon, **F. Farvadi**, S.S. Abolmaali and Z. Sobhani, 39th CRS annual meeting & exposition, Quebec, Canada (2012)

Targeted delivery of doxorubicin loaded PEGylated single-wall carbon nanotubes by Nucleolin aptamer

F. Farvadi, A.M. Tamaddon, S.S. Abolmaali, 3rd International Congress on Nanoscience and Nanotechnology, Shiraz, Iran (2010)

Nucleolin aptamer targeted delivery of doxorubicin loaded on PEGylated single-wall short nanotube

F. Farvadi, A.M. Tamaddon., 12th Iranian pharmaceutical sciences congress, Zanjan, Iran (2010)

Books

- *Compiled and translated book: Pathophysiology and Treatment of Alzheimer's disease.* F. Farvadi, M. J.Khoshnood (in press)
- *Compiled Pharmacopoeia: under the supervision of Prof. SohaNamazi for Faghihi Hospital, Shiraz University of Medical Sciences, Fall 2009, Shiraz, Iran*

Selected Technical Skills

- Nanoparticle synthesis and characterization
- Design and development of drug delivery systems
- Cell culture techniques
- Cytotoxicological experiments (Comet assay, Apoptosis/necrosis assessment, ROS assessment, live/dead assay, cell cycle study, assessment of nanoparticle cell uptake, ...)
- Analysis of nanomaterials
- Hard corona formation and characterization
- Bioconjugation
- Micelle and liposome preparation
- Polyacrylamide gel electrophoresis (PAGE)

Other Skills

- **Software:** Microsoft Office package, FCS Express, Flowing, Image J, Sigma plot, EndNote, HyperChem, ChemSketch
- **Language:** Persian (native), English (Advanced), French (Intermediate), Arabic (Basic)
- **Soft skills:** Positive attitude, Creative thinking, Problem solving, Critical thinking, Teamwork, Resilience

Research Interests

- Nano-Bio interactions
- Nanotoxicology and nanosafety
- Novel drug delivery systems
- Early detection of the diseases based on nanomaterials (Nano-Bio sensor)

- System biology
- Holistic & integrative medicine
- Preventive medicine

Referees

1. Morteza Mahmoudi, PhD
Assistant professor, Department of Radiology and Precision Health Program, Michigan State University
Email: mahmou22@msu.edu
2. Rassoul Dinarvand, Ph.D
Professor, Department of Pharmaceutics, School of Pharmacy, Tehran University of Medical Sciences
Email: dinarvand@gmail.com, dinarvand@sina.tums.ac.ir
3. Ali-Mohammad Tamaddon, Ph.D
Professor, Department of Pharmaceutical Nanotechnology, School of Pharmacy, Shiraz University of Medical Sciences
Head of Nanotechnology Research Centre in drug delivery, Shiraz University of Medical Sciences
Email: amtamadon@gmail.com, amtamadon@sums.ac.ir