

REYHANEH VARSHOCHIAN

PhD of Pharmaceutics



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<https://scholar.google.com/citations?user=6lb7OmwAAAAJ&hl=en>

PROFILE

PhD of pharmaceutics with a 8-year experience of research, working on **novel drug deliveries** and **biomaterials**, an 18-month postdoctoral research, and a 7-year background of teaching as a lecturer. Assistant professor since 2020.

EDUCATION

2008-2013 [Tehran University of Medical Sciences- Tehran](#) | **PhD**

Pharmaceutics, Dissertation: Preparation and evaluation of polymeric nanoparticles containing bevacizumab for CNV treatment.

Thesis: 19.5/20, GPA:18.2/20 (within the top 5 in the class)

2002-2008 [Shahid Beheshti University of Medical Sciences- Tehran](#) | **PharmD**

Dissertation: Reduction of percutaneous absorption of toxic chemicals by dendrimers

Thesis: 20/20, GPA: 17.6/20 (within the top 5 in the class)

Nano and microparticle in therapeutic systems

Protein and gene delivery

Tissue engineering and therapeutic biomaterials

Targeted drug delivery and Anti-cancer deliveries

Bio-responsive and in-situ forming hydrogels

Novel ocular drug delivery

RESEARCH INTERESTS

2020-current [Shahid Beheshti University of Medical Sciences- Tehran](#) |

Assistant Professor, Department of Pharmaceutics

<http://www.sbmu.ac.ir/index.jsp?fkeyid=&siteid=93&pageid=13471>

2019-2020 [Tofigh Daru Research and Engineering Company- Tehran](#) | **Formulation Consultant**

Micro and Nano formulations- <http://www.todaco.com/>

2017-2019 [Nanotechnology Research Center, Tehran University of Medical Sciences- Tehran](#) | **Postdoctoral Researcher**

2013-2017 [Nano Daru Company](#) | **Project Manager**

Injectable sustained release drug delivery formulation- <http://nanodaru.com/>

RESEARCH & WORK EXPERIENCE

PROFESSIONAL SKILLS

Preparation and characterization of various Novel Drug Deliveries including: nano/micro particles, in situ forming gel, block-co polymers and implants

Designing and developing IN VITRO & IN VIVO tests

Designing and developing ELISA tests, SDS-PAGE, Gel doc, Total protein assay , Flow cytometry, MTT assay, Cell culture

Working with DLS, HPLC, GPC, DSC, CD and Confocal microscope

Various granulation and coating methods, Fluid bed coater

Biopharmaceutical analysis

AWARDS & HONORS

2010 Number one student

The National Board exam (Pharmaceutics), Awarded by Iran Ministry of Health and Medical Education

2008 Number one student

The National PhD Entrance exam (Pharmaceutics)

PUBLICATIONS

<https://scholar.google.com/citations?user=6lb7OmwAAAAJ&hl=en>

EXPERIENCES

- ✓ Designing and pilot scale preparation of injectable and oral anticancer and antiviral oral granule, tablet, and capsule formulations (2020-current)
- ✓ Work in **aseptic condition and clean room** (Class B & A) (2015-2017)
- ✓ Lecturer, workshops (Polymeric nanoparticles in drug delivery), 2018 and 2019
- ✓ Executive secretary of Iranian Pharmaceutical Science Conference 2015, (IPSC 2015)
- ✓ Project researcher , Hakim Pharmaceutical Company (2009)

Nanomedicine → PhD students (2020-current)

Protein & Peptide drug delivery → PharmD students (2020-current)

Lenses and Lens care solutions → PharmD students (2020-current)

Injectable formulations and sterilization → PhD students (2016-2019)

Novel drug delivery → PharmD students (2014-current)

Transdermal drug deliveries → PharmD students students (2013-2019)

TEACHING ACTIVITIES (As a lecturer)

SOFTWARE SKILLS

GraphPad Prism

SPSS

Design of Experiments

PKsolver, Monolix

LANGUAGES

Farsi

English

Turkish

Arabic

PUBLICATIONS

- SN38 loaded nanostructured lipid carriers (NLCs); preparation and in vitro evaluations against glioblastoma

A Sabouri Shirazi, **R Varshochian**, M Rezaei, Y Hosseinzadeh Ardakani, R Dinarvand

Journal of Materials Science: Materials in Medicine volume 32, 78 (2021)

2021

- Combinatorial delivery of antigen and TLR agonists via PLGA nanoparticles modulates Leishmania major-infected-macrophages activation

A Katebi, **R Varshochian**, F Riazi-rad, M Ganjalikhani-Hakemi, S Ajdary

Biomedicine & Pharmacotherapy, 137, 111276

2021

- An in situ hydrogel-forming scaffold loaded by PLGA microspheres containing carbon nanotube as a suitable niche for neural differentiation

A Shafiee, M Kehtari, Z Zarei, M Soleimani, **R Varshochian**, A Ahmadi, F Atyabi, R Dinarvand

Materials Science and Engineering: C 120, 111739

2021

- Optimization of chitosan-based polyelectrolyte nanoparticles for gene delivery, using design of experiment: in vitro and in vivo study

M Baghaei, FS Mirzazadeh Tekie, MR Khoshayand, **R Varshochian**, M Hajiramezanali, ...

Materials Science and Engineering: C, 111036

2021

- Trimethyl chitosan-hyaluronic acid nano-polyplexes for intravitreal VEGFR-2 siRNA delivery: Formulation and in-vivo efficacy evaluation

F Chaharband, N Daftarian, MR Kanavi, **R Varshochian**, ...

Nanomedicine: Nanotechnology, Biology and Medicine, 102181

2020

- Graphene aerogel nanoparticles for in-situ loading/pH sensitive releasing anticancer drugs

H Ayazi, O Akhavan, M Raoufi, **R Varshochian**, NSH Motlagh, F Atyabi

Colloids and Surfaces B: Biointerfaces 186, 110712

2020

- NanoMIL-100 (Fe) containing docetaxel for breast cancer therapy

M Rezaei, A Abbasi, **R Varshochian**, R Dinarvand, M Jeddi-Tehrani

Artificial cells, nanomedicine, and biotechnology 46 (7), 1390-1401

2018

- Ocular implant containing bevacizumab-loaded chitosan nanoparticles intended for choroidal neovascularization treatment

P Badiie, **R Varshochian (Co-Correspond)**, M Rafiee-Tehrani, F Abedin Dorkoosh, ...

Journal of Biomedical Materials Research Part A 106 (8), 2261-2271

2018

- A New Approach for Treatment and Prevention of Recurrent Oral Lichen Planus: A Technical Report

KA F. Agha-Hosseini, M-S. Moosavi, **R. Varshochian**

Islamic Dental Association of IRAN (JIDA). 30 (3), 126-131

2018

- The ocular hypotensive efficacy of topical fasudil, a Rho-Associated protein kinase inhibitor, in patients with End-Stage Glaucoma
M Pakravan, AN Beni, E Ghahari, **R Varshochian**, S Yazdani, H Esfandiari, ...
American journal of therapeutics 24 (6), e676-e680
- Preparation and characterization of cardamom extract-loaded gelatin nanoparticles as effective targeted drug delivery system to treat glioblastoma
H Nejat, M Rabiee, **R Varshochian**, M Tahriri, HE Jazayeri, J Rajadas, ...
Reactive and Functional Polymers 120, 46-56
- Solid lipid nanoparticles surface modified with anti-Contactin-2 or anti-Neurofascin for brain-targeted delivery of medicines
N Gandomi, **R Varshochian**, F Atyabi, MH Ghahremani, M Sharifzadeh, ...
Pharmaceutical development and technology 22 (3), 426-435
- Biotin decorated PLGA nanoparticles containing SN-38 designed for cancer therapy
M Mehdizadeh, H Rouhani, N Sepehri, **R Varshochian**, MH Ghahremani, ...
Artificial cells, nanomedicine, and biotechnology 45 (3), 495-504
- Docetaxel–Chitosan nanoparticles for breast cancer treatment: cell viability and gene expression study
ZH Mirzaie, S Irani, R Mirfakhraie, SM Atyabi, M Dinarvand, R Dinarvand, **R Varshochian**,
Chemical biology & drug design 88 (6), 850-858
- Albuminated PLGA nanoparticles containing bevacizumab intended for ocular neovascularization treatment
R Varshochian, M Riazi-Esfahani, M Jeddi-Tehrani, AR Mahmoudi, ...
Journal of biomedical materials research part A 103 (10), 3148-3156
- Utilizing liposomes and lipid nanoparticles to overcome challenges in breast cancer treatment
R Varshochian, H Hosseinzadeh, N Gandomi, F Tavassolian, F Atyabi, ...
Clinical Lipidology 9 (5), 571-585
- The protective effect of albumin on bevacizumab activity and stability in PLGA nanoparticles intended for retinal and choroidal neovascularization treatments
R Varshochian, M Jeddi-Tehrani, AR Mahmoudi, MR Khoshayand, ...
European Journal of Pharmaceutical Sciences 50 (3-4), 341-352
- Recent approaches to overcoming multiple drug resistance in breast cancer using modified liposomes
R Dinarvand, **R Varshochian**, G Kamalinia, N Goodarzi, F Atyabi
Clinical Lipidology 8 (4), 391-394

2017

2017

2017

2017

2016

2015

2014

2013

2013

- A review of polysaccharide cytotoxic drug conjugates for cancer therapy N Goodarzi, R Varshochian , G Kamalinia, F Atyabi, R Dinarvand Carbohydrate polymers 92 (2), 1280-1293	2013
- Albuminated PLGA nanoparticles for the ophthalmic delivery of bevacizumab intended for retinal and choroidal neovascularization treatment R Varshochian , M Riazi-Esfahani, AR Mahmoudi, ... The European CLINAM & ETPN Summit, Basel, Switzerland	2013
- Bioconjugation of Cytotoxic Drugs to Peptides, Proteins and Aptamers as Novel Nanostructures for Enhanced Anticancer Drug Delivery G Kamalinia, R Varshochian , N Goodarzi, Fatemeh Atyabi Nanotechnology: Diagnostics and Therapeutics 7, 266-290	2013
- Evaluation of bevacizumab activity during encapsulation into polymeric nanospheres by double emulsion method R Varshochian , M Jeddi-Tehrani, A Mahmoudi, R Dinarvand Research in Pharmaceutical Sciences 7 (5), 208	2012
- Reduction of percutaneous absorption of toxic chemicals by dendrimers HR Moghimi, R Varshochian , F Kobarfard, M Erfan Cutaneous and ocular toxicology 29 (1), 34-40	2010

PERESENTAIONS

Oral Presentation in the 4th Iranian Research Association of Vision and Ophthalmology (Albuminated PLGA nanoparticles containing bevacizumab intended for treatment of retinal and choroidal neovascularization)	IRAVO 2014
Oral presentation in the 6th CLINAM &ETPN Summit (Albuminated PLGA nanoparticles for the ophthalmic delivery of bevacizumab intended for retinal and choroidal neovascularization treatment) Basel, Switzerland.	CLINA M 2013
Oral presentation in the 12th Iranian Pharmaceutical Sciences Conference (Novel usage of dendrimers in reduction of percutaneous absorption of toxic chemicals) Zanjan, Iran.	IPSC 2010
Poster in the Regional Conference of Young Scientists, Nanoscience & Nanomaterials, TWAS (Preparation of thermosensitive in situ forming gel containing diclofenac loaded nanoparticles intended for ocular inflammation treatment) Bangalore, India.	TWAS 2015
Poster in the 6th CLINAM &ETPN Summit (Transmission of topical SiO ₂ nanoparticles through the corneal stroma; a new horizon for management of corneal and choroidal neovascularization) Basel, Switzerland. Journal of Biomedical Materials Research Part A 106 (8), 2261-2271	CLINA M 2013
Poster in the 12th International conference of Polymers for Advanced Technology (Thermosensitive Poloxamer/chitosan in situ-forming gel containing diclofenac sodium intended for ocular inflammation treatments) Berlin, Germany.	PAT 2013