

# *Curriculum Vitae*

## **TAMADDON Ali-Mohammad, PharmD, PhD**

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### **Education**

- Research Fellowship (2005): UMR CNRS 8121, Vectorologie et Transfert de Genes, Institut Gustave Roussy, Villejuif, France (PROTHETS project title: efficiency and specificity of antisense oligodeoxynucleotide and small interfering RNA (siRNA) delivered by cationic nanovectors in Ewing sarcoma under supervision of Prof. Claude Malvy and Prof. Patrick Couvreur)
- Ph.D. (2000-2006): Department of Pharmaceutics, Shaheed-Beheshti University of Medical Sciences, School of Pharmacy, Tehran, (Ph.D. dissertation title: effect of bilayer destabilizing agents on the cytoplasmic release of antisense oligonucleotides from PEG-stabilized cationic lipid nanoparticles and their cytotoxicity on tumor cells under supervision of Prof. Hamidreza Moghimi and Prof. Farshad Hosseini Shirazi)
- Pharm.D. (1994-2000): School of Pharmacy and Pharmaceutical Sciences, Isfahan University of Medical Sciences, Isfahan (Pharm.D. thesis under supervision of Prof. Amirhooshang Zargarzadeh)
- Diploma in experimental sciences (1994): Shahid-Ejei high school, National Organization for Development of Exceptional Talents (NODET, SAMPAD in Persian), Isfahan, Iran.

### **Research profile and interests:**

Scopus: H-index = 24, number of publications = 117, number of citations = 1994

Scholar: H-index = 27, number of publications = 153, number of citations = 2417

- Bioengineering materials for drug delivery, imaging, and tissue regeneration
- Polymer synthesis and characterization including hyperbranched polymers, polymeric micelles, and hydrogels
- Synthesis and characterization of nanomaterials including quantum dots, graphene oxide, metal and metal oxide nanoparticles, mesoporous, metal-organic frame works, supramolecular nanoscale systems
- Bioconjugation chemistry including protein PEGylation, antibody and carbohydrate conjugation
- Gene delivery with lipid nanoparticles
- Tissue regeneration using stem cells, exosomes, and microgels

### **Technical skills:**

- Atomic force microscopy (AFM supervisor)
- Dynamic light scattering (DLS-zeta potential supervisor)
- Microscopy and spectroscopy methods
- Cell culture and bioassays (supervisor)
- Flow cytometry
- High performance liquid chromatography (HPLC) including size exclusion chromatography (SEC) and ion exchange chromatography (IEC)
- Pharmacometrics, design and analysis of experiments
- Individual pharmacokinetics
- Small animal bioluminescent imaging (supervisor)

### **Teaching expertise**

- Microscopy and analysis of nanomaterials, Pharmaceutical Nanotechnology Ph.D. Program
- Nanomaterials for drug delivery, Pharmaceutical Nanotechnology Ph.D. Program
- Polymer science and engineering, Pharmaceutical Nanotechnology Ph.D. Program
- Pharmacokinetics, Pharmaceutics and Pharmaceutical Nanotechnology Ph.D. Programs
- Nanobiotechnology, Medical Biotechnology M.Sc. and Ph.D. Programs

- Pharmaceutical statistics and software, Pharmaceutics and Pharmaceutical Nanotechnology Ph.D. Programs
- Novel drug Delivery Systems, Pharmaceutics Ph.D. Program
- Powder technology, Industrial pharmacy, Pharmaceutics Ph.D. Program
- Diffusion, Dissolution, and Drug Release, Physical Pharmacy, Pharmaceutics Ph.D. Program
- Nanotechnology for pharmacy students, Pharm.D. Program
- Pharmaceutics V (Novel Drug Delivery Systems), Pharm.D. Program
- Biopharmaceutics and Pharmacokinetics, Pharm.D. Program
- Physical Pharmacy, Pharm.D. Program
- Community Pharmacy Practice, Pharm.D. Program
- Industrial Pharmacy Practice, Pharm.D. Program

#### **Lectured workshops:**

- Cell-based bioassays (2016, 2018, 2020)
- FlowJo software (2015, 2019, 2022)
- Lab safety and good laboratory practice (2016, 2018)
- Cellular characterization of nanomaterials (2015)
- Introduction to nanomedicine, Spring Nano School, Shiraz University (2015)
- Cellular aspects of nanomaterials, Asian Nano Forum (2015)
- BioAFM imaging (2013, 2014)
- Experimental data analysis using Graphpad Prism software (2013)
- Experimental design: methodologies and applications in drug development, Controlled Release Society Biennial Meeting, Zanjan University of Medical Sciences (2010)
- Research methodology in pharmaceutical sciences (2009)
- Endnote software (2008)
- Getting familiar with granting organizations (2008)
- Cell culture and cytotoxicity assays (2005)

#### **Awards and distinctions:**

- Acclaimed Researcher, Deputy of Research and Technology, Shiraz University of Medical Sciences (2021)
- Distinguished Faculty Member (top University Scientists), Deputy of Research and Technology, Shiraz University of Medical Sciences (2014, 2018, 2022)

- Invited Guest, Clinical Nanomedicine (CLINAM) Conference, European Society for Nanomedicine (ESNAM), 2014
- Distinguished Faculty Member (School of Pharmacy), Deputy of Education, Shiraz University of Medical Sciences (2011)
- National Young Scientist Award, Ministry of Health and Medical Education (2008)
- Ranked 1st Top in Comprehensive Pharmaceutics Board Exam, Shaheed-Beheshti Medical University (2002)
- Awarded Scholarship for Accomplishment of Ph.D. on Pharmaceutics, Ministry of Health and Medical Education (2000)

### **Professional memberships:**

- Industrial Pharmacy Committee, Ministry of health and Medical Education (2023)
- National Board of Pharmaceutics, Ministry of health and Medical Education (2018 - 2022)
- National Board of Pharmaceutical Nanotechnology, Ministry of health and Medical Education (2013 - 2018)
- Editorial board, JAMSAT (2015 - )
- Editorial board, Trends in Pharmaceutical Sciences, Faculty of Pharmacy (2014 - )
- Council of Pharmaceutical Technology Incubator and Board of Trustees of the University Clean Rooms, Shiraz University of Medical Sciences (2013 - )
- Strategic Council of Nanotechnology Network, Ministry of Health and Medical Education (2013 - 2014)
- Iranian Association of Biopharmaceutics and Pharmacokinetics
- Iranian Association of Pharmaceutical Scientist
- Iranian Controlled Release Society (2006 - )
- Iran Medical Council (2000 - )

### **Academic appointments /administrative activities:**

- Academic authority and mission in the field of pharmaceutical nanotechnology, Shiraz University of Medical Sciences (2021 - )
- Chairman of the board, Nanofarsan Pharm Tech Dev knowledge-based company, Pharmaceutical Technology Incubator, Shiraz University of Medical Sciences (2015 - )
- Director, Research Center for Nanotechnology in Drug Delivery, Shiraz University of Medical Sciences (2014 - )

- Academic member (2<sup>nd</sup> affiliation), Pharmaceutical Nanotechnology, Shiraz School of Pharmacy (2011 - )
- Director, Nanotechnology Characterization Lab, Shiraz University of Medical Sciences (2010 - )
- Academic member (1<sup>st</sup> affiliation), Department of Pharmaceutics, Shiraz School of Pharmacy (2006 - )
- Head of department, Pharmaceutical Nanotechnology, Shiraz University of Medical Sciences (2011 - 2022)
- Deputy Head of Education, Shiraz School of Pharmacy (2017 – 2018)
- Deputy Head of Graduate Education, Shiraz School of Pharmacy (2014 – 2017)
- Academic member, Pharmaceutical Sciences Research Center, Shiraz University of Medical Sciences
- Academic member, Department of Pharmaceutical Biotechnology, Shiraz School of Pharmacy (2008)

### **Publications:**

- Tamaddon, A.M., et al., Indirect co-culture of islet cells in 3D biocompatible collagen/laminin scaffold with angiomiRs transfected mesenchymal stem cells. *Cell Biochemistry and Function*, 2023.
- Monajati, M., et al., L-asparaginase immobilization in supramolecular nanogels of PEG-grafted poly HPMA and bis ( $\alpha$ -cyclodextrin) to enhance pharmacokinetics and lower enzyme antigenicity. *Colloids and Surfaces B: Biointerfaces*, 2023. 225: p. 113234.
- Monajati, M., et al., Enhanced L-asparaginase stability through immobilization in supramolecular nanogels of PEG-grafted poly HPMA with bis ( $\alpha$ -cyclodextrin). *Biochemical Engineering Journal*, 2023. 191: p. 108802.
- Alimardani, V., et al., In-situ nanomicelle forming microneedles of poly NIPAAm-b-poly glutamic acid for trans-scleral delivery of dexamethasone. *Journal of Industrial and Engineering Chemistry*, 2023. 119: p. 485-498.
- Zareshahrabadi, Z., et al., Magnetic chitosan nanoparticles loaded with Amphotericin B: Synthesis, properties and potentiation of antifungal activity against common human pathogenic fungal strains. *International Journal of Biological Macromolecules*, 2022. 222: p. 1619-1631.
- Toghiani, R., et al., Bioengineering exosomes for treatment of organ ischemia/reperfusion injury. *Life Sciences*, 2022: p. 120654.

- Taheri, A., et al., Complexation of cress seed mucilage and  $\beta$ -lactoglobulin; optimization through response surface methodology and adaptive neuro-fuzzy inference system (ANFIS). *Chemometrics and Intelligent Laboratory Systems*, 2022. 228: p. 104615.
- Shafiee, M., et al., Taguchi design optimization of curcumin loading in mesoporous silica nanoparticles with variable particle and pore sizes. *Trends in Pharmaceutical Sciences*, 2022. 8(3): p. 155-164.
- Sarvestani, F.S., et al., Construction and Transfer of PEI-miRNA-126/210 Polyplex into Human Umbilical Vein Endothelial Cells with Investigation of Its Effect on Islets Survival and Function. *Pharmaceutical Sciences*, 2022. 29(1): p. 90-99.
- Rahiminezhad, Z., et al., PLGA-graphene quantum dot nanocomposites targeted against  $\alpha\beta3$  integrin receptor for sorafenib delivery in angiogenesis. *Biomaterials Advances*, 2022. 137: p. 212851.
- Najafi, H., et al., Integrin Receptor-Binding Nanofibrous Peptide Hydrogel for Combined Mesenchymal Stem Cell Therapy and Nitric Oxide Delivery in Renal Ischemia/Reperfusion Injury. 2022.
- Montaseri, Z., et al., Composite silk fibroin hydrogel scaffolds for cartilage tissue regeneration. *Journal of Drug Delivery Science and Technology*, 2022: p. 104018.
- Monajati, M., et al., Novel self-assembled nanogels of PEG-grafted poly HPMA with bis ( $\alpha$ -cyclodextrin) containing disulfide linkage: synthesis, bio-disintegration, and in vivo biocompatibility. *New Journal of Chemistry*, 2022. 46(20): p. 9931-9943.
- Khosravi, F., et al., A novel method for the chaperone aided and efficient production of human proinsulin in the prokaryotic system. *Journal of Biotechnology*, 2022. 346: p. 35-46.
- Kheirkhah, S., et al., Surface engineered palmitoyl-mesoporous silica nanoparticles with supported lipid bilayer coatings for high-capacity loading and prolonged release of dexamethasone: A factorial design approach. *Journal of Drug Delivery Science and Technology*, 2022. 78: p. 103943.
- Javanmardi, S., et al., PEGylated nanohydrogels delivering anti-MicroRNA-21 suppress ovarian tumor-associated angiogenesis in Matrigel and chicken chorioallantoic membrane models. *Bioimpacts*, 2022. 12(5): p. 449-461.
- Jafari, M., et al., Amphiphilic hyperbranched polyglycerol nanoarchitectures for Amphotericin B delivery in *Candida* infections. *Biomaterials Advances*, 2022. 139: p. 212996.
- Dolatabadi, H.T., M. Izadi, and A.M. Tamaddon, Evaluation of penicillin residues in milk by ELISA using aptamer bonded to gold nanoparticles. *Gold Bulletin*, 2022. 55(2): p. 187-193.

- Dahri, M., et al., Nanoscale aggregation of doxorubicin-short peptide conjugates for enzyme-responsive delivery with various MOF carriers: In-silico steps towards smart cancer chemotherapy. *Computers in Biology and Medicine*, 2022. 144: p. 105386.
- Behzadnia, M., et al., Sorafenib tosylate incorporation into mesoporous starch xerogel for in-situ micronization and oral bioavailability enhancement. *Drug Development and Industrial Pharmacy*, 2022. 48(8): p. 343-354.
- Alimardani, V., et al., Comparative Study on Bio/Micro and Nanoencapsulation Technologies Applications in the Food Industry, in *Recent Advances in Food Biotechnology*. 2022, Springer Nature Singapore. p. 303-330.
- Abolmaali, S.S., et al., Biotin receptor-targeting nanogels loaded with methotrexate for enhanced antitumor efficacy in triple-negative breast cancer in vitro and in vivo models. *International Journal of Pharmaceutics*, 2022. 624: p. 122049.
- Abolmaali, S.S., et al., Nanotechnology-based approaches against COVID-19, in *Emerging Nanomaterials and Nano-Based Drug Delivery Approaches to Combat Antimicrobial Resistance*. 2022, Elsevier. p. 305-364.
- Taheri, A., et al., Comparison of binary cress seed mucilage (CSM)/ $\beta$ -lactoglobulin (BLG) and ternary CSG-BLG-Ca (calcium) complexes as emulsifiers: Interfacial behavior and freeze-thawing stability. *Carbohydrate Polymers*, 2021. 266: p. 118148.
- Taheri, A., et al., Vitamin D3 cress seed mucilage- $\beta$ -lactoglobulin nanocomplexes: Synthesis, characterization, encapsulation and simulated intestinal fluid in vitro release. *Carbohydrate Polymers*, 2021. 256: p. 117420.
- Shiri, A., et al., The inflammatory and fibrotic patterns of hepatic stellate cells following coagulation factors (VII or X)-shielded adenovirus infection. *Current Microbiology*, 2021. 78: p. 718-726.
- Shafiee, M., et al., Synthesis of Pore-Size-Tunable Mesoporous Silica Nanoparticles by Simultaneous Sol-Gel and Radical Polymerization to Enhance Silibinin Dissolution. *Iranian Journal of Medical Sciences*, 2021. 46(6): p. 475.
- Sarvestani, F.S., et al., microRNAs in liver and kidney ischemia reperfusion injury: Insight to improve transplantation outcome. *Biomedicine & Pharmacotherapy*, 2021. 133: p. 110944.
- Salmanpour, M., et al., Sterically stabilized polyionic complex nanogels of chitosan lysate and PEG-b-polyglutamic acid copolymer for the delivery of irinotecan active metabolite (SN-38). *Current Drug Delivery*, 2021. 18(6): p. 741-752.

- Oliyaei, N., et al., Antidiabetic effect of fucoxanthin extracted from *Sargassum angustifolium* on streptozotocin-nicotinamide-induced type 2 diabetic mice. *Food Science & Nutrition*, 2021. 9(7): p. 3521-3529.
- Najafi, H., et al., Structural, mechanical, and biological characterization of hierarchical nanofibrous Fmoc-phenylalanine-valine hydrogels for 3D culture of differentiated and mesenchymal stem cells. *Soft Matter*, 2021. 17(1): p. 57-67.
- Najafi, H., et al., Nitric oxide releasing nanofibrous Fmoc-dipeptide hydrogels for amelioration of renal ischemia/reperfusion injury. *Journal of Controlled Release*, 2021. 337: p. 1-13.
- Naghizadeh, M., M.A. Taher, and A.-M. Tamaddon, Application of CoFe<sub>2</sub>O<sub>4</sub>@SiO<sub>2</sub>@ Chitosan Nanoparticles for Cadmium (II) Preconcentration in Totally Different Samples and its Determination through ETAAS. *Silicon*, 2021. 13: p. 3795-3806.
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- Jafari, M., et al., Nanotechnology approaches for delivery and targeting of Amphotericin B in fungal and parasitic diseases. *Nanomedicine*, 2021. 16(10): p. 857-877.
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- Ghojoghi, R., et al., The role of coagulation factors VII, VIII, and IX on the tropism and inflammatory effect of Adenovector on liver and breast cell lines. 2021.
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- Soleimanpour, M., et al., Fabrication of nanostructured mesoporous starch encapsulating soy-derived phytoestrogen (genistein) by well-tuned solvent exchange method. *International Journal of Biological Macromolecules*, 2020. 159: p. 1031-1047.
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- Shafiee, M., et al., One-pot synthesis of poly (alkyl methacrylate)-functionalized mesoporous silica hybrid nanocomposites for microencapsulation of poorly soluble phytochemicals. *Colloid and Interface Science Communications*, 2020. 37: p. 100298.
- Salmanpour, M., et al., Hydrolytic stabilization of irinotecan active metabolite (SN38) against physiologic pH through self-assembly of conjugated poly (2-oxazoline)-poly (L-amino acid) block copolymer: A-synthesis and physicochemical characterization. *Journal of Drug Delivery Science and Technology*, 2020. 60: p. 101933.
- Rahiminezhad, Z., et al., Janus nanoparticles: new generation of multifunctional nanocarriers in drug delivery, bioimaging and theranostics. *Applied Materials Today*, 2020. 18: p. 100513.
- Oliyaei, N., et al., Double encapsulation of fucoxanthin using porous starch through sequential coating modification with maltodextrin and gum Arabic. *Food Science & Nutrition*, 2020. 8(2): p. 1226-1236.
- Oliyaei, N., et al., Encapsulation of fucoxanthin in binary matrices of porous starch and halloysite. *Food Hydrocolloids*, 2020. 100: p. 105458.

- Mohammad Tamaddon, A., et al., Histologic evaluation of new doxycycline gel formulation for subgingival application in experimental periodontitis in rats. *International Journal of Scientific Research in Dental and Medical Sciences*, 2020. 2(4): p. 107-114.
- Karimi, F., et al., Carbon nanotubes for amplification of electrochemical signal in drug and food analysis; a mini review. *Current Biochemical Engineering*, 2020. 6(2): p. 114-119.
- Javanmardi, S., et al., Redox-sensitive, PEG-shielded carboxymethyl PEI nanogels silencing MicroRNA-21, sensitizes resistant ovarian cancer cells to cisplatin. *Asian Journal of Pharmaceutical Sciences*, 2020. 15(1): p. 69-82.
- Jafari, M., et al., Hyperbranched polyglycerol nanostructures for anti-biofouling, multifunctional drug delivery, bioimaging and theranostic applications. *International journal of pharmaceutics*, 2020. 576: p. 118959.
- Hosseini, S.A.A., A. Tamadon, and M. Zamanian, Vibrations Analysis of a Rotor Supported by Tilting-Pad Journal Bearings with Considering of Geometric Nonlinearity. *Amirkabir Journal of Mechanical Engineering*, 2020. 52(1): p. 141-154.
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- Darvishi, M.M., et al., Evaluation of the efficacy of albendazole sulfoxide (ABZ-SO)-loaded chitosan-PLGA nanoparticles in the treatment of cystic echinococcosis in laboratory mice. *Parasitology Research*, 2020. 119: p. 4233-4241.
- Chavoshy, F., et al., Delivery and anti-psoriatic effect of silibinin-loaded polymeric micelles: An experimental study in the psoriatic skin model. *Current Drug Delivery*, 2020. 17(9): p. 787-798.
- Alizadeh, M., et al., A DNA based biosensor amplified with ZIF-8/ionic liquid composite for determination of mitoxantrone anticancer drug: an experimental/docking investigation. *Frontiers in Chemistry*, 2020. 8: p. 814.
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- Abedi, M., et al., Core-shell imidazoline-functionalized mesoporous silica superparamagnetic hybrid nanoparticles as a potential theranostic agent for controlled delivery of platinum (II) compound. *International Journal of Nanomedicine*, 2020: p. 2617-2631.

- Abedanzadeh, S., et al., Potent cyclometallated Pd (II) antitumor complexes bearing  $\alpha$ -amino acids: synthesis, structural characterization, DNA/BSA binding, cytotoxicity, and molecular dynamics simulation. *Dalton Transactions*, 2020. 49(42): p. 14891-14907.
- Abedanzadeh, M., et al., Curcumin loaded polymeric micelles of variable hydrophobic lengths by RAFT polymerization: Preparation and in-vitro characterization. *Journal of Drug Delivery Science and Technology*, 2020. 58: p. 101793.
- Salmanpour, M., et al., Nanoparticulate delivery of irinotecan active metabolite (SN38) in murine colorectal carcinoma through conjugation to poly (2-ethyl 2-oxazoline)-b-poly (L-glutamic acid) double hydrophilic copolymer. *European Journal of Pharmaceutical Sciences*, 2019. 136: p. 104941.
- Oliyaei, N., et al., Preparation and characterization of porous starch reinforced with halloysite nanotube by solvent exchange method. *International journal of biological macromolecules*, 2019. 123: p. 682-690.
- Naghizadeh, M., et al., Microextraction of Gadolinium MRI contrast agent using core-shell Fe<sub>3</sub>O<sub>4</sub>@ SiO<sub>2</sub> nanoparticles: optimization of adsorption conditions and in-vitro study. *Environmental Nanotechnology, Monitoring & Management*, 2019. 12: p. 100250.
- Naghizadeh, M., et al., *Environmental Nanotechnology. Monitoring & Management*, 2019. 12: p. 100250.
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- Mostoufi, H., et al., Reversing multi-drug tumor resistance to Paclitaxel by well-defined pH-sensitive amphiphilic polypeptide block copolymers via induction of lysosomal membrane permeabilization. *Colloids and Surfaces B: Biointerfaces*, 2019. 174: p. 17-27.
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- Pilot-plant production of PEG-asparaginase, National Institute for Medical Research Development (NIMAD)
- Development of PEG - polypeptide micellar nanoparticle parenteral preparation containing cisplatin for delivery in colorectal cancers (Health Technology Development office, Ministry of Health and Medical Education)

### **Thesis Supervision:**

- Antibody-toxin conjugated using a hydrophilic polymer linker (Amirsaman Fattahi, Ph.D. supervisor)
- Cyclodextrin-functionalized metallographene oxide for combined SERS imaging and targeted therapy (Fahameh Mahmoodi, Ph.D. supervisor)

- mRNA-encapsulated lipid nanoparticles for macrophage polarization (Elaheh Haghighi, Ph.D. advisor)
- Hyaluronic hydrogel microneedles for diabetic wound healing (Mahnoosh Mohammadi, Pharm.D. supervisor)
- Microfluidics-assisted synthesis of microgels for cell therapy and wound healing (Mojgan Abedanzadeh, Ph.D. co-supervisor)
- Hyaluronic acid-functionalized nanoemulsions in liver inflammations (Fatemeh Senobari, Pharm.D. Supervisor)
- Pluronic-polyester polymer micelles for delivery of cisplatin (Samira Amini, Ph.D. co-supervisor)
- Hybrid exosomes for delivery of mitochondria-specific peptide in renal ischemia-reperfusion injury (Reyhaneh Toghyani, Ph.D., supervisor)
- Cell membrane-cloaked quantum dots for homo and heterotypic targeting in a biomimetic substrate (Zohreh Montaseri, Ph.D. supervisor)
- TiO<sub>2</sub>-molecular imprinted hydrogels for delivery of chemotherapeutic agent in melanoma (Leila Moradi, Ph.D. co-supervisor)
- Delivery of corticosteroids by PEG-oligopeptide micelle forming microneedles in uveitis (Vahid Alimardani, Ph.D. advisor, 2023)
- Preparation of in-situ forming hydrogel scaffold containing angiomiRs and evaluation of its function on survival and function of mouse islet cells (Fatemeh Sabet Sarvestani, Ph.D. co-supervisor, 2023)
- Simvastatin loaded magnetoliposome for treatment of intimal hyperplasia (Zahra Salmanpour, Pharm.D. advisor, 2023)
- Long circulating RBC membrane-camouflaged silibinin-loaded mesoporous silica nanocomposites for treatment of liver inflammations (Vahid Tayebi, Pharm.D. advisor, 2022)
- Molecular docking of streptokinase fused with fibrin-binding peptide for targeted drug delivery to blood clot (Sorosh Hajizadeh, Pharm.D. co-supervisor, 2022)
- Lung surfactant-mediated delivery of GHK-Cu peptide in lung fibrosis (Mohammad Hadidi, Pharm.D. co-supervisor, 2022)

- Anti-MUC18 scFv functionalized gold nanocages for targeted delivery of apoptotic peptide in prostate cancer (Ghazal Farahavar, Ph.D. co-supervisor, 2022)
- Targeted delivery of sorafenib by graphene QD tag-PLGA nanocomposites to angiogenic vessels (Zahra Rahiminejad, Ph.D. supervisor: 2022)
- Fréchet-type HPG dendrimers for delivery of amphotericin B in candidiasis (Mahboubeh Jafari, Ph.D. supervisor, 2022)
- Design and synthesis of functionalized Au nanocages for delivery of 5-FU in skin tumors (Sepideh Salehi, Pharm.D. co-supervisor, 2022)
- Core-shell nanoparticles of MSN@black TiO<sub>2</sub> functionalized with PNIPAAm-PVP for stimuli-responsive drug delivery (Fatemeh Hasani, Pharm.D. supervisor, 2022)
- Mesoporous silica nanoparticles functionalized with RAFT polymerized PNIPAAm-PVP for stimuli-responsive drug delivery (Fatemeh Zare, Pharm.D. co-supervisor, 2022)
- Fe<sub>3</sub>O<sub>4</sub>-amidoamine modified GO nanosheets for stimuli-responsive delivery of doxorubicin (72- Amirreza Sarikhani, pharm.D. supervisor, 2022)
- Evaluations of the cytotoxicity and genotoxicity of L-amino acid reduced graphene oxide in mesenchymal stem cells (Rahman Bashiri, Pharm.D. supervisor, 2021)
- Synthesis and cellular characterization of graphene QD and  $\beta$ -CD functionalized branched PEI for simultaneous delivery of antimir-21 and cellular imaging (Mana Heidari, Pharm.D. supervisor, 2021)
- Hierarchical synthesis of magnetic mesoporous metal-organic frameworks and silica nanoparticles for delivery of platinum II compounds in breast cancer (Mehdi Abedi, Ph.D. supervisor, 2021)
- Synthesis of aromatic dipeptide hydrogels for combined delivery of nitric oxide donor and mesenchymal stem cell in ischemic renal disease (Haniyeh Najafi, Ph.D. supervisor, 2020)
- Preparation and in-vivo characterization of mesoporous starch for oral delivery of genistein (Marjan Soleimanpour, Ph.D. co-supervisor, 2020)
- Synthesis of Poly HPMA-PEG based nanogels for delivery of L-asparaginase in vivo (Maryam Monajati, Ph.D. co-supervisor, 2020)
- Preparation and characterization of temperature-sensitive microneedles of PNIPAAm-PEG-chitosan containing liraglutide (Narsis Pouralifard, Pharm.D. supervisor, 2020)

- Preparation and characterization of magnetic nanocomposites as green adsorbents for concentrating metal ions (Matin Naghizadeh, Ph.D. advisor, 2020)
- Preparation and cellular characterization of anti-EGFR targeted, multi-arm PEG conjugate of L-asparaginase (Fateme Kazemian, Pharm.D. supervisor, 2020)
- Synthesis of multi-arm PEG conjugates of irinotecan and SN38 (Maryam Kazemikia, Pharm.D. supervisor, 2020)
- Preparation and cellular characterization of multi-arm PEG conjugate of L-asparaginase and  $\alpha$ -cyclodextrin for codelivery of methotrexate (Roya Jamali, Pharm.D. supervisor, 2020)
- Preparation and in-vivo characterization of short aromatic peptide hydrogels containing simvastatin in diabetic wound healing (Elnaz Janipour, Pharm.D. supervisor, 2020)
- Preparation and characterization of ricobendazole-loaded chitosan-PLGA nanoparticles for treatment of hydatid cyst (Mahdi Darvishi, Ph.D. advisor, 2020)
- Porous starch reinforced with halloysite for delivery of fucoxanthin (Nadjme Olyaei, Ph.D. advisor, 2019)
- Fatty acid conjugation, loading and release of dexamethasone from phospholipid stabilized mesoporous silica nanoparticles (Sara Kheirkhah, Pharm.D. supervisor, 2019)
- Synthesis of poly 2-oxazoline nanogels for cellular delivery of antagomiR-21 in cisplatin-resistant ovary tumor cells (Sanaz Javanmardi, Ph.D. co-supervisor, 2019)
- Development of a diagnostic tool based on scFv-functionalized gold nanoparticles for colorimetric detection of a cancer biomarker in patient urine samples (Nooraldeen Faraji, Ph.D. co-supervisor, 2019)
- Synthesis of polypeptide block copolymeric micelles for cellular delivery of paclitaxel (Hassan Mostofi, Ph.D. co-supervisor, 2018)
- Preparation and characterization of micellar polymeric conjugate nanoparticles of PEOx-b-PGlu and SN-38 in experimental model of colorectal cancer (Mohsen Salmanpour, Ph.D. supervisor, 2017)
- Preparation and characterization of polyionic complex micelles of mPEG-poly  $\gamma$  benzyl L-glutamic acid and LMW chitosan for delivery of SN-38 (Mahvand Saeevaghefi, Pharm.D. supervisor, 2017)

- Development of silibinin containing polymer micelles and in-vivo transdermal investigation in psoriatic model in rat (Fatemeh Chavoshi, Pharm.D. co-supervisor, 2017)
- Synthesis and characterization of carboxylated poly (mPEG-methacrylate-co-2-isopropylene 2-oxazoline) for delivery of cisplatin (Zahra Hosseini Rezaei, Pharm.D. co-supervisor, 2017)
- Synthesis of poly L-histidine-b-Poly HPMA polymer micelles for cellular delivery of paclitaxel (Sahar Abbasi, Ph.D. co-supervisor, 2017)
- Preparation and characterization of proniosomal formulations for oral delivery of genistein (Razieh Nemati, M.Sc. co-supervisor, 2017)
- Synthesis and cellular characterization of cisplatin-loaded, carboxylic acid-functionalized poly ethyleneimine Stealth nanogels (Ladan Ghahramani, Pharm.D. co-supervisor, 2016)
- Doxycycline in-situ gel formulation for subgingival application in experimental periodontitis in rats (Faezeh Saadati, D.D.S. co-supervisor, 2016)
- Mesoporous starch for oral delivery of sorafenib tosylate (Mehrnoosh Behzadnia, Pharm.D. supervisor, 2015)
- Colon-targeted delivery of anis oil and phase 3 clinical trial in IBS Patients (Maryam Mosaffa, Ph.D. supervisor, 2015)
- HER-2 targeted, Anti-VEGF SiRNA loaded dendrosomes (Nasim Golkar, Ph.D. supervisor, 2015)
- Biological and immunological characterization of PEGylated L-Asparaginase (Asal Samadnejad, Pharm.D. supervisor, 2015)
- Micellar polymer nanoparticles of mPEG-b-PMMA for delivery of phytochemicals (Mojgan Abedanzadeh, Pharm.D. thesis, 2015)
- Differentiation of endometrial stem cells to neurons on carbon nanofibers prepared by electro-spinning method (Esmail Mirzaei, Ph.D. advisor, 2015)
- Synthesis and physicochemical characterization of PEG-succinimidyl succinate conjugates of L-Asparaginase (Shayan Mehrvarz, Pharm.D. co-supervisor, 2014)
- Preparation and characterization of Ag NPs loaded collagen film for periodontal infections (Mohammadzadeh, D.D.S co-supervisor, 2014)
- Preparation of an injectable thermosensitive in-situ forming hydrogel for sustained delivery of doxycycline (Ali Shahabuei, Pharm.D. co-supervisor, 2014)

- Preparation and characterization of chitosan modified MWNT carbon nanotubes for sustained delivery of doxycycline (Hossein Rezaei, Pharm.D. co-supervisor, 2014)
- PLGA nanoparticles for parenteral controlled release formulation of growth hormone (Behzad Taghipour, Ph.D. advisor, 2014)
- Imidazolyl mesoporous silica nanoparticles for transfection of GFP plasmid (Mahdokht Mahmoudi, M.Sc. co-supervisor, 2014)
- Preparation, physicochemical and biological characterization of mono-PEGylated G-CSF (Fateme Hasanshahi, Pharm.D. co-supervisor, 2014)
- Hydrogel nanoparticles of mPEG-g-(PEI-His) for delivery of methotrexate in experimental model of rheumatoid arthritis (SamiraSadat Abolmaali, Ph.D. supervisor, 2014)
- Polyamidoamine dendronized magnetic nanoparticles for delivery of methotrexate (Ali Salah, Pharm.D. supervisor, 2013)
- Development of a new pulp capping material in comparison with mineral trioxide aggregate in rat molar (Yasmin Ghahramani, dentistry specialty co-supervisor, 2013)
- Liposomal vaccine containing PMV and MPL for cutaneous leishmaniasis by dehydration-rehydration method (Afshin Samiei, Ph.D. advisor, 2013)
- Preparation and cellular characterization of micellar polymeric nanoparticles of PEG-g-(mPEI-His) and GFP plasmid (Haniyeh Najafi, Pharm.D. supervisor, 2013)
- Development of micellar polymeric nanoparticles of cholesterol-g-PEI-g-mPEG for loading of poorly soluble drug sorafenib tosylate (Maryam Monajati, Pharm.D. supervisor, 2013)
- Synthesis and characterization of PLA-b-mPEG micellar polymeric nanoparticles for delivery of paclitaxel (Mojdeh Motamedi, Pharm.D. co-supervisor, 2013)
- Synthesis and characterization of cationic human serum albumin conjugated magnetic nanoparticles intended for brain delivery (Mehri Mollai, Pharm.D. supervisor, 2013)
- Preparation and physicochemical characterization of PEGylated PAMAM dendrimers for delivery of docetaxel (Azadeh Amini, Pharm.D. co-supervisor, 2013)
- Delivery of hTERT SiRNA using polyionic complex nanoparticles in adenocarcinoma cells (47. Fatemeh Safari, M.Sc. co-supervisor, 2012)

- Taguchi Design optimization of nanoencapsulation of nucleic acids-DOTAP complexes in PEGylated liposomes by reverse phase evaporation (Shirin Tavakoli, Pharm.D. supervisor, 2012)
- SWNT-COOH/mPEG-g-PEI for targeted delivery of doxorubicin in breast tumor cells (Fakhrsadat Farvadi, Pharm.D. supervisor, 2012)
- PEGylation of PAMAM dendrimers for solubilization of sorafenib and delivery to hepatocellular carcinoma in-vitro (Fateme Hashemi, Pharm.D. supervisor, 2012)
- Synthesis and characterization of PLGA-mPEG copolymers and preparation of micellar nanoparticles for delivery of docetaxel (Elaheh Parhizkar, Pharm.D. co-supervisor, 2012)
- Pharmacokinetics of high-dose methotrexate in acute lymphoblastic lymphoma patients for determination of leucovorin rescue termination (Lida Shojaei, Pharm.D. co-supervisor, 2012)
- In-vivo bioluminescence imaging of PEGylated human serum albumin in carrageen induced inflammation (Mehdi Hourang, Pharm.D. supervisor, 2012)
- Synthesis of mPEG-functionalized magnetite nanoparticles for delivery of methotrexate (Elham Cheraghipour, M.Sc. co-supervisor, 2012)
- DUE and determination of plasma level of vancomycin in ICU of Namazi Hospital (Elaheh Omidvari, Pharm.D. co-supervisor, 2012)
- Ultrasonic extraction of bioactive compounds from red cabbage and microencapsulation in solid lipid nanoparticles for application in food and pharmaceutical industry (Raheleh Ravanfar, M.Sc. co-supervisor, 2011)
- Survivin-directed antisense lipoplexes for chemo-sensitization of breast tumor cells to doxorubicin (Mojgan Nikraves, Pharm.D. supervisor, 2011)
- Oral absorption pharmacokinetics of oxcarbazepine and relationship to ABCB1 SNP in Iranian healthy volunteers (Maryam Bagheri, Pharm.D. supervisor, 2010)
- Fabrication of paromomycin loaded solid lipid nanoparticles by precipitation from microemulsion (Tayebeh Khaliji, Pharm.D. co-supervisor, 2010)
- Preparation and pharmaceutical characterization of lamotrigine chitosan nanogels (Nader Dinari, Pharm.D. co-supervisor, 2010)
- Preparation and cellular characterization of PEG-immunoliposomes against HER-2 in breast tumor cells (Nasim Golkar, Pharm.D. supervisor, 2009)



**Book Chapters:**

- Samira S Abolmaali, Vahid Alimardani, Ghazal Farahavar, Haniyeh Najafi, Mina Shafiee, Nader Tanideh, Ali M Tamaddon, Samad Ahadian, Nanotechnology-based approaches against COVID-19, Elsevier, 2022.
- Vahid Alimardani, Zahra Rahiminezhad, Neetu Talreja, Divya Chauhan, Samira Sadat Abolmaali, Gholamhossein Yousefi, Ali Mohammad Tamaddon, Mohammad Ashfaq, Comparative Study on Bio/Micro and Nanoencapsulation Technologies Applications in the Food Industry, Springer, 2022

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