

CURRICULUM VITAE

Somayeh Handali

- *BSc of Biology (College of Sciences, Shahid Chamran University, Ahvaz, Iran)*
- *MS of Microbiology (Jahrom Branch, Islamic Azad University, Jahrom, Iran)*
- *PhD in Pharmaceutical Nanotechnology (Nanotechnology Research Center, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran)*

Email: handali_s81@yahoo.com

Tel: 09161147998

Assistant Professor of Pharmaceutical Nanotechnology, Medical Biomaterials Research Center (MBRC), Tehran University of Medical Sciences, Tehran, Iran.

Deputy Research Director of Medical Biomaterials Research Center (MBRC), Tehran University of Medical Sciences, Iran

PhD Thesis: Preparation of Enteric Coated Liposomes containing 5-fluorouracil for Colon Targeting.

MSc Thesis: Preparation of Bacterial Liposome for Development of Drug Delivery System

Articles

- 1- Moghimipour E, **Handali S***, Functionalized Liposomes as a Potential Drug Delivery Systems for Colon Cancer Treatment: A Systematic Review. *Functionalized liposomes as a potential drug delivery system for colon cancer treatment: A systematic review.* **2024**; 269: 132023.

- 2- Moghimipour E, Gorji A, Yaghoobi R, Salimi A, Latifi M, Aghakouchakzadeh M, **Handali S***. Clinical Evaluation of Liposome-based Gel Formulation Containing Glycolic Acid for the Treatment of Photodamaged Skin. *J of Drug Targeting*. **2024**; 32 (1): 74–79.
- 3- **Handali S**, Rezaei M*. General justification in terms of effectiveness and toxicities for the use of nanocarriers. *J Nanopart Res*. **2023**; 25 (181): 1-18.
- 4- **Handali S**, Haririan I, M Vaziri, Dorkoosh F*. Nanomedicine “New Food for an Old Mouth”: Novel Approaches for Treatment of COVID-19. *Drug Delivery Letters*. **2023**; 13: 83-91.
- 5- Moghimipour E, Abedini M, **Handali S***. Targeted Solid Lipid Nanoparticles Formulation for Colon Cancer Treatment and Cytotoxicity Assessment Using HT29 Cell Line. *Jundishapur J Nat Pharm Prod*. **2023**; 18(2): e135987.
- 6- Abbasi H, Kouchak M, Mirveis Z, Hajipour F, Khodarahmi M, Rahbar N*, **Handali S****. What we need to know about liposomes as drug nanocarriers: an update review. *Advanced Pharmaceutical Bulletin*. **2023**; 13(1): 7–23.
- 7- Khodarahmi M, Abbasi H, Kouchak M, Mahdavinia M, **Handali S**, Rahbar N*. Nanoencapsulation of aptamer-functionalized 5-Fluorouracil liposomes using alginate/chitosan complex as a novel targeting strategy for colon-specific drug delivery. *Journal of Drug Delivery Science and Technology*. **2022**; 71, 103299.
- 8- Amin M, Moghimipour E, Pipelzadeh MH, **Handali S**, Yaghoobi MR, Farshadzadeh Z*. Physicochemical Characterization and Clinical Evaluation of Final Formulation of Shallomin Liposomal Gel on Cold Sore. *J of Medicinal Plants and By-products*. **2022**; 43-49.
- 9- Moghimipour E, Abedishirehjin S, Abedini Baghbadorani M, **Handali S***. Bacteria and Archaea: a New Era of Cancer Therapy. *Journal of Controlled Release*. **2021**; 338: 1-7.

- 10- **Handali S**, Rezaei M*. Arsenic and weight loss: At a crossroad between lipogenesis and lipolysis. *Journal of Trace Elements in Medicine and Biology*. **2021**; 68: 126836.
- 11- Abbasi H, Rahbar N *, Kouchak M, Khalil Dezfuli P. **Handali S****. Functionalized liposomes as drug nanocarriers for active targeted cancer therapy: A systematic review. *Journal of Liposome Research*. **2021**; 1-16.
- 12- **Handali S**, Rezaei M*. Interlink between Improved Formulations, Inhibitory Concentrations and Cell Death Mechanism Investigations of Cytotoxic Drugs: What Really Matters? *Journal of Controlled Release*. **2020**; 320: 404-411.
- 13- **Handali S**, Moghimipour E, Ramezani Z, Rezaei M, Dorkoosh F*. PHBV/PLGA nanoparticles for enhanced delivery of 5-Fluorouracil as promising treatment of colon cancer. *Pharmaceutical Development and Technology*. **2020**; 25 (2): 206-218.
- 14- Abolhassani H, Safavi MS, **Handali S**, Nosrati M, Shojaosadati SA*. Synergistic Effect of Self-assembled Curcumin-Piperine-Loaded Human Serum Albumin Nanoparticles on Suppressing Cancer Cells. *Drug Development and Industrial Pharmacy*. **2020**; 1-9.
- 15- Nezhadiah S, Saadatb E, **Handali S**, Dorkoosh F*. Nanomedicine and chemotherapeutics drug delivery: challenges and opportunities. *J of Drug Targeting*. **2020**; 29 (2): 185–198.
- 16- Moghimipour E, Ramezani Z*, **Handali S**, Babapoor A. Polyamidoamine dendrimer–digoxin impregnated PVC film in the fingerprint detection of herbs’ essential oil coupled to gas chromatography–mass spectrometry. *Journal of the Iranian Chemical Society*. **2020**; 17(10): 2545-2553.
- 17- Kouchak M, Rezaei S, Moshabeh N, **Handali S***. Preparation and Evaluation of Matrix Containing Lidocaine and Prilocaine for Using in Transdermal Films. *Journal of Reports in Pharmaceutical Sciences*. **2019**; 8(2): 270-276.
- 18- **Handali S**, Moghimipour E, Rezaei M, Saremy S, Dorkoosh F*. Co-Delivery of 5-Fluorouracil and Oxaliplatin in Novel PHBV/PLGA Nanoparticles for Colon Cancer Therapy. *International J of Biological Macromolecules*. **2019**; 124: 1299-1311.

- 19- **Handali S.** Moghimipour E, Kouchak M, Ramezani Z, Amini M, Ahmadi Angali K, Saremy S, Dorkoosh F, Rezaei M *. New Folate Receptor Targeted Nano Liposomes for Delivery of 5-Fluorouracil to Cancer Cells: Strong Implication for Enhanced Potency and Safety. *Life Sciences*. **2019**; 227: 39-50.
- 20- Moghimipour E, Rezaei M, Ramezani Z, Kouchak M, Amini M, Ahmadi Angali K, Dorkoosh F, **Handali S***. Transferrin targeted liposomal 5-fluorouracil induced apoptosis via mitochondria signaling pathway in cancer cells. *Life Sciences*. **2018**; 194: 104-110.
- 21- Moghimipour E, Dorkoosh F, Rezaei M, Kouchak M, Fatahiasi J, Ahmadi Angali K, Ramezani Z, Amini M, **Handali S***. *In vivo* evaluation of pH and time-dependent polymers as coating agent for colonic delivery using central composite design. *J of Drug Delivery Science and Technology*. **2018**; 43: 50-56.
- 22- Moghimipour E, Rezaei M, Ramezani Z, Kouchak M, Amini M, Ahmadi Angali K, Dorkoosh F, **Handali S***. Folic acid-modified liposomal drug delivery strategy for tumor targeting of 5-fluorouracil. *European J of Pharmaceutical Sciences*. **2018**; 114: 166-174.
- 23- **Handali S.** Moghimipour E, Rezaei M, Kouchak M, Ramezani Z, Dorkoosh F*. *In vitro* and *in vivo* evaluation of coated capsules for colonic delivery. *J of Drug Delivery Science and Technology*. **2018**; 47: 492–498.
- 24- **Handali S.** Moghimipour E, Rezaei M, Ramezani Z, Kouchak M, Amini M, Ahmadi Angali K, **Saremy S**, **Dorkoosh F***. A novel 5-Fluorouracil targeted delivery to colon cancer using folic acid conjugated liposomes. *Biomedicine & Pharmacotherapy*. **2018**; 108: 1259-1273.
- 25- **Handali S.** Ramezani Z, Moghimipour E, Rezaei M, **Dorkoosh F***. A Novel Method for the Simultaneous Determination of 5-Fluorouracil and Oxaliplatin in New Biodegradable PHBV/PLGA Nanoparticles. *J of the Iranian Chemical Society*. **2018**; 1-7.
- 26- Moghimipour E, Rezaei M, Kouchak M, Ramezani Z, Amini M, Ahmadi Angali K, Dorkoosh F, **Handali S***. A Mechanistic Study of the Effect of Transferrin Conjugation on Cytotoxicity of Targeted Liposomes. *J of Microencapsulation*. **2018**; 35 (6): 548-558.

- 27- Moghimipour E, Rezaei M, Kouchak M, Fatahiasi J, Ahmadi Angali K, Ramezani Z, Amini M, Dorkoosh F, **Handali S***. Effects of coating layer and release medium on release profile from coated capsules with Eudragit FS 30D: an *in vitro* and *in vivo* study. *Drug Development and Industrial Pharmacy*. **2017**; 1-6.
- 28- Moghimipour E, Ramezani Z, **Handali S***. Solid Lipid Nanoparticles as a Delivery System for *Zataria multiflora* Essential Oil: Formulation and Characterization. *Current Drug Delivery*. **2013**; 10 (2): 151-157.
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- 30- Moghimipour E, **Handali S***. Liposomes as drug delivery systems: properties and applications. *Research J of Pharmaceutical, Biological and Chemical Sciences*. **2013**; 4(1): 169-185.
- 31- **Handali S**, Hosseini H, Ameri A, Moghimipour E*. Formulation and evaluation of an antibacterial cream from *Oxalis corniculata aqueous* extract. *Jundishapur J of Microbiology*. **2011**; 4(4): 255-260.
- 32- Moghimipour E, Kargar M, Ramezani Z, **Handali S***. The Potent *in vitro* Skin Permeation of Archaeosome Made from Lipids Extracted of *Sulfolobus acidocaldarius*. *Archaea*. **2013**; 2013:1-7.
- 33- Moghimipour E, Kargar M, **Handali S***. Archaeosomes Moving Toward Nano-Drug Delivery. *Review in Medical Microbiology*. **2014**; 25(2): 40-45.
- 34- Moghimipour E, Kargar M, Ramezani Z, **Handali S***. Archaeosome Made from Lipids Extracted of *Acidianus brierleyi* as an Innovative Drug Delivery System. *J of Pure and Applied Microbiology*. **2014**; 8(2): 957-964.
- 35- Moghimipour E, Ameri A, **Handali S***. Absorption Enhancing Effect of Bile Salts. *Molecules*. **2015**; 20: 14451-14473.
- 36- Ameri A, Moghimipour E, Ramezani Z, Kargar M, Hashemitabar M, Saremy S, **Handali S***. Formulation of a New Generation of Liposomes from Bacterial and Archeal Lipids. *Tropical J of Pharmaceutical Research*. **2016**; 15 (2): 215-220.
- 37- Moghimipour E, **Handali S***. Utilization of thin film method for preparation of celecoxib loaded liposomes. *Advanced Pharmaceutical Bulletin*. **2012**; 2(1): 93-98.

- 38- Moghimipour E, Aghel N, Mahmoudabadi AR, Ramezani Z, **Handali S***. Preparation and Characterization of Liposomes Containing Essential Oil of *Eucalyptus camaldulensis* Leaf. *Jundishapur J Nat Pharm Prod.* **2012**; 7(3):117-122.
- 39- Moghimipour E, **Handali S***, Salimi A, Masoum M. The Effect of Electrolyte Concentration and Polymer Content on the Rheological Behavior of Magnesium Hydroxide Suspension. *British Journal of Medicine & Medical Research.* **2013**; 3(4): 1979-1987.
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- 41- Moghimipour E, Kouchak M, Salimi A, Bahrapour S, **Handali S***. The Effect of Polymer Content on the Non-Newtonian Behavior of Acetaminophen Suspension. *J. of Drug Delivery.* **2013**; 2013:1-5.
- 42- Moghimipour E, Sagaghi Nejad B, **Handali S***, Ameri A, Ramezani Z Azemi ME. *In vitro* Screening of Anti-*Candida* Activity of Saponins Extracted from *Glycyrrhiza glabra* and *Quillaja saponaria*. *Asian J Pharm Clin Res.* **2014**; 7(1): 160-162.
- 43- Moghimipour E, Kooshapour H, Rezaee S, Khalili S, **Handali S***. *In vitro* Cholesterol Binding Affinity of Total Saponin Extracted from *Glycyrrhiza glabra*. *Asian J Pharm Clin Res.* **2014**; 7(1): 170-173.
- 44- Kargar M, Moghimipour E, Ramezani Z, **Handali S***. Application Potential of Liposomal Delivery Systems Prepared by Lipids Extracted from *E.coli* Culture. *Annual Research & Review in Biology.* **2014**; 4(8): 1319-1329.
- 45- Kouchak M, **Handali S***. Effects of Various Penetration Enhancers on Penetration of Aminophylline through Shed Snake Skin. *Jundishapur J Nat Pharm Prod.* **2014**; 9(1): 24-29.
- 46- Moghimipour E, Rezaei S, Salimi A, Balack M, **Handali S***. Influence of Flocculating Agents and Structural Vehicles on the Physical Stability and Rheological Behavior of Nitrofurantoin Suspension. *Jundishapur J Nat Pharm Prod.* **2014**; 9(2): e12716.

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- 48- Kargar M*, Moein Jahromi F, Doosti A, **Handali S**. Molecular Investigation of Quinolone Resistance of Quinolone Resistance-Determining Region in *Streptococcus pneumoniae* Strains Isolated from Iran Using Polymerase Chain Reaction Restriction Fragment Length Polymorphism Method. *Osong Public Health Res Perspect*. **2014**; 5(5): 245-250.
- 49- Moghimipour E, **Handali S***. Saponin: Properties, Methods of Evaluation and Applications. *Annual Research & Review in Biology*. **2015**; 5(3): 207-220.
- 50- Kouchak M, **Handali S***, Naseri B. Evaluation of the Mechanical Properties and Drug Permeability of Chitosan/ Eudragit RL Composite Film. *Osong Public Health Res Perspect*. **2015**; 6(1): 14-19.
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- 53- Moghimipour E, Sajadi Tabassi SA, Ramezani M, **Handali S***, Löbenberg R. Absorption Enhancing Effect of Total Saponins derived from *Acanthopyllum squarrusom* and *Quillaja saponaria* on Nasal Permeation of Gentamicin Sulfate and Carboxyfluorescein. *Research Journal of Pharmaceutical, Biological and Chemical Sciences*. **2016**; 7(3): 285- 291.
- 54- Moghimipour E, Sajadi Tabassi SA, Ramezani M, **Handali S***, Löbenberg R. Brush Border Membrane Vesicle (BBMV) and Caco-2 Cell Line: Two Experimental Models for Evaluation of Absorption Enhancing Effects of Saponins, Bile Salts and Some Synthetic Surfactants. *Journal of Advanced Pharmaceutical Technology & Research*. **2016**; 7(3): 75-79.

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- 56- Garib Nasri MK*, **Handali S.**, Hosseini H. Antipasmolytic activity of *Physalis alkekengi* L. leaf hydroalcoholic extract on rat ileum. *Iranian J of Medicinal and Aromatic Plant.* **2007**; 23(3): 340-348.
- 57- Hosseini H*, **Handali S.**, Parishani MR, Ghezelbash GH.R, Ameri A. A comparative study of antibacterial effects of aqueous extract of *Oxalis corniculata* L. with antibacterial effect of common antibiotic in *Staphylococcus aureus* and *E.coli* infections. *J of Medical Plants.* **2010**; 9(33): 103-107.
- 58- Kargar M*, **Handali S.**, Moghimipour E, Ramezani Z. Preparation and Characterization of Escherichia coli Liposomes as a New Drug Delivery System to Colon Cancer. *Biological J of Microorganism,* **2016**; 17: 87-96.
- 59- Moein Jahromi F, Kargar M*, Doosti A, **Handali S.** Evaluation of the Mutations in Topoisomerase IV Genes and Their Role in Development of Resistance to Quinolones in *Streptococcus pneumonia.* *J of Medical Bacteriology.* **2019**; 8: 51-57.
- 60- **Handali S.**, Rezaei M. Therapeutic monoclonal antibodies at phase 3 clinical study for management of Covid-19. *Pathobiology Research.* **2020**;23(4):177-183 (Persian).

Articles under review

- 1- **Handali S.**, Rezaei M*. Viral Scavenging by Decorated Nanocarriers: a Practical Approach for Coronavirus Infection Prevention and Treatment.
- 2- Moghimipour E, Kiarsi M, Ghadiri A, Ghandil P, Borsi H, Khodaei F, **Handali S.*** Association of Genetic Variants with Treatment Response to Symbicort® in Asthma Patients of Iranian Arab Population.

- 3- Vaziri M, Abedini Baghbadorani M, Khandae Ghamsari M, **Handali S***. The Prospect of using Nanotechnology to Prevent and Treat Infections Caused by *Listeria monocytogenes*
- 4- Maleki F, **Handali S***, Rezaei M*. Arsenic Trioxide Synergistically Enhances the Anti-Neoplastic Effect of Gemcitabine on Breast Cancer Cells by Promoting Mitochondrial Dysfunction.
- 5- Moghimipour E, Khazali M, Sharif MakhmalZadeh B, Abedini Baghbadorani M, Zangeneh A, Sohrabi S, Nejaddehbashi F, Hajipour F, **Handali S***: Development of Propranolol Loaded Solid Lipid Nanoparticles for Transdermal Delivery: *in-vitro* Characterization, *ex-vivo* and *in vivo* Evaluation
- 6- Saadatzade A, Shabaninezhad K, **Handali S***, **Moghimipour E****. Novel Mucoadhesive Film Containing Probiotic Extract for Oral Candidiasis Treatment: Formulation and Antifungal Evaluation

Books

- 1- Moghimipour E, **Handali S**. Liposomes Properties and Pharmaceutical Applications. Lambert Academic Publishing, **2013**. AV Akademicaerverlag GmbH and Co KG. ISBN: 978-3-659-32638-7.
- 2- **Handali S**, Moghimipour E. Application of Dendrimers in Drug Delivery - Principles and Approaches. Lambert Academic Publishing, **2012**. AV Akademicaerverlag GmbH and Co KG. ISBN: 978-3-659-20667-2.
- 3- Moghimipour E, **Handali S**. Novel Drug Delivery Systems. Book 1. Arad Book Publishing Co. **2016**. ISBN: 978-600-1865-240-3.
- 4- Moghimipour E, **Handali S**. Drug permeation pathways and the methods of absorption enhancement. Olomofonon-Pezesheki Publishing. **2015**. ISBN: 978-600-7025-31-4.

5- Chapter book: Mitochondrial metabolism. Academic Press is an imprint of Elsevier
125 London Wall, London EC2Y 5AS, United Kingdom
525 B Street, Suite 1650, San Diego, CA 92101, United States
50 Hampshire Street, 5th Floor, Cambridge, MA 02139, United States
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- **chapter 1:** *Mitochondria as balancers of reduction/oxidation for intracellular environment (1-18)*
- **chapter 7:** *Mitochondria and cancer therapy (156-178)*
- **chapter 11:** *Mitotherapy, an attractive avenue for the future medicine (277-294)*

6. Moghimipour E, **Handali S.** Smart Drug Delivery; Chapter: **Targeted Nano-Drug Delivery System to Colon Cancer.** **2021.** IntechOpen (UK). DOI: 10.5772/intechopen.100059.

۷- کاربرد سیستم های میکروفلوئیدک در زیست مواد. فصل ۴۹، ص: ۹۶۶-۹۵۹، چاپ دوم، برترین فناوری های نوظهور پزشکی و داروسازی با چشم انداز از آینده ۲۰۵۰، انتشارات بیان ویژه

8- Rafiee-Tehrani M, **Handali S,** Vaziri M, Nezhadi S, Abedin Dorkoosh F. *Nanoscience Applications in Diabetes Treatment*, Chapter: **Nanomedicine for Insulin Delivery in Diabetes.** **2023.** Bentham Science Publishers. 57-69. ISBN (Online): 978-981-5196-53-5.

Research fields

- ❖ Pharmaceutical nanotechnology (novel drug delivery such as SLN, liposome, polymeric nanoparticle, dendrimer, archaeosomes)
- ❖ Biopolymers and biomaterial application in drug delivery
- ❖ Pharmaceutics
- ❖ Cancer
- ❖ Drug Targeting

- ❖ Biotechnology
- ❖ Plant medicine
- ❖ Microbiology

Skills

- Different analytical analysis methods such as ELISA, HPLC and UV
- Preparation of different nanocarriers (liposomes, polymeric nanoparticle, dendrimer, archaeosomes and SLN)
- Working with different cell cultures (cancer and normal cells)
- Working with different microbial cultures (bacteria and fungi) and archaea culture
- Formulation and investigation on different pharmaceutical dosage forms such as solid dosage forms and oral delivery systems
- Cell Techniques: MTT, ROS, Cytochrom c, caspase, apoptosis, $\Delta\Psi_m$
- Transdermal drug delivery (patch, film)
- Skill in extraction of plant extracts
- PCR
- Cloning
- Bioremediation

Presentations

1. Garib Nasri MK*, **Handali S**, Hosseini H. Antispasmodic activity of *Physalis alkekengi* L. leaf hydroalcoholic extract on rat ileum. *18th Iranian Congress of Physiology and Pharmacology*, Aug. **2007**, Mashhad, Iran (**Poster**)
2. Hosseini H*, **Handali S**, Moghimipour E, Parishani MR, Ghezelbash GH.R, Ameri A. A comparative study of antibacterial effect of aqueous extract of *Oxalis corniculata* L., with antibacterial effect of common antibiotic in *Staphylococcus aureus* and *E.coli* infections

- and cream formulation preparation. *The 3th congress of medicinal plants*. **2007**, Tehran, Iran (**Poster**).
3. Garib Nasri MK, Parishani MR*, Hosseini H, **Handali S**. Spasmolytic activity of *Oxalis corniculata* L. aqueous extract on rat ileum and uterus. *1th National Congress of Plant Biology*. Payam Noor University, Talesh, August **2008**.
 4. Moghimipour E, Aghel N, **Handali S***. Evaluation of the entrapment of Eucalyptus camadulensis essential oil in liposomes, *12th IPSC 2010*, August 2010, Zanjan, Iran. (**Poster**)
 5. Moghimipour E, Aghel N, Mahmoudabadi AR, **Handali S***. Formulation of an antifungal liposomal gel of Eucalyptus camadulensis essential oil, *1st NanoDrugs Congress*, **2011**, Ahvaz, Iran. (**Oral**)
 6. Moghimipour E, **Handali S***. Characterization of Zataria multiflora essential oil loaded solid lipid nanoparticles. *13th IPSC 2012*. Isfahan, Iran (**Poster**)
 7. Moghimipour E, **Handali S***. Preparation of celecoxib liposomes by thin-film method and Evaluation of their physicochemical properties, *2nd NanoDrugs Congress*, **2012**, Ahvaz, Iran (**Oral**).
 8. Moghimipour E, Kargar M, Ramezani Z, **Handali S***. Archaeosome, a novel drug delivery system made of lipids extracted from *Acidianus brierleyi*. *6th Iranian Controlled Release Society Conference & 1st Middle East Controlled Release conference*, **2014**, Tehran, Iran (**Poster**).
 9. Moghimipour E, **Handali S***. Utilization of thin film method for preparation of celecoxib loaded liposomes. *7th congress of Students Research Congress of AJUMS*. **2015**, Ahvaz. Iran (**Poster**).
 10. Kargar M, Moghimipour E, Ramezani Z, **Handali S***. Application Potential of Liposomal Delivery Systems Prepared by Lipids Extracted from *E.coli* Culture. *7th congress of Students Research Congress of AJUMS*. **2015**, Ahvaz. Iran (**Poster**).

11. Moghimipour E, Rezaei S, Salimi A, Asadi E, **Handali S***. Rheological behavior and stability of ciprofloxacin suspension: Impact of structural vehicles and flocculating agent. *7th congress of Students Research Congress of AJUMS. 2015, Ahvaz, Iran (Poster)*.
12. Moghimipour E, Kooshapour H, Parkhideh S, **Handali S***. Cholesterol Binding Activity of Total Saponins Extracted from *Ziziphus spina-christi*. *7th congress of Students Research Congress of AJUMS. 2015, Ahvaz, Iran (Poster)*.
13. Moghimipour E, Kargar M, Ramezani Z, **Handali S***. The Potent *in vitro* Skin Permeation of Archaeosome Made from Lipids Extracted of *Sulfolobus acidocaldarius*. *7th congress of Students Research Congress of AJUMS. 2015, Ahvaz, Iran (Oral)*. (**Best Oral Presentation**)
14. Moghimipour E, Kargar M, Ramezani Z, Saremy S, **Handali S***. Potential Application of Archaeosomal Delivery Systems Prepared by Lipids Extracted from *Sulfolobus acidocaldarius* Cultures. *14th Iranian Pharmaceutical Sciences Congress (IPSC) 2015, Tehran, Iran (Poster)*.
15. Moghimipour E, Sajadi Tabassi SA, Ramezani M, **Handali S***, Löbenberg R. Brush Border Membrane Vesicle (BBMV) and Caco-2 Cell Line: Two Experimental Models for Evaluation of Absorption Enhancing Effects of Saponins, Bile Salts and Some Synthetic Surfactants. *14th Iranian Pharmaceutical Sciences Congress (IPSC) 2015, Tehran, Iran (Oral)*.
16. Moghimipour E, **Handali S**, Ramezani Z. characterization and thermal properties of synthesized Dendrimer-digoxin conjugation. *The 2th Iranian Nanomedicine congress. 2016, Zanjan, Iran (Oral)*.
17. Moghimipour E, Dorkoosh F, Rezaei M, Kouchak M, Fatahiasi J, Ahmadi Angali K, Ramezani Z, Amini M, **Handali S***. *In vivo* evaluation of pH and time-dependent polymers as coating agent for colonic delivery using central composite design. *15th Iranian Pharmaceutical Sciences Congress (IPSC) 2017, Hamadan, Iran (Poster)*.
18. **Handali S**, Moghimipour E, Rezaei M, Ramezani Z, Kouchak M, Amini M, Ahmadi Angali K, Saremy S, Dorkoosh F*. Evaluation of Cytotoxicity and Mechanism of

Apoptosis Of 5-fluorouracil Using Folic Acid Conjugated Liposomes for Targeted Delivery to Colon Cancer. *Controlled release society (CRS) 2018, New York, USA (Poster)*.

19. Moghimipour E, **Handali S**. Complex Forming Affinity of *Ziziphus spina-christi* Total Saponin with Cholesterol. *8th National Congress on Medicinal Plants 2019, Tehran, Iran (Poster)*.

20. **Handali S**, Moghimipour E, Rezaei M, Ramezani Z, Dorkoosh F*. *in Vitro and in Vivo* Study of 5-Fluorouracil Loaded in Novel Nanoparticles Based on Poly (3-hydroxybutyrate-co-3-hydroxyvalerate acid)/ Poly (lactic-co-glycolic acid). *Controlled release society (CRS) 2019, Valencia, Spain (Poster)*.

Research Projects

1. Preparation of chitosan-based hydrogel containing antibiotic and antibiofilm for coating orthopedic implants.
2. Study of the effect of chitosan wound dressing containing antibiotics on recovering process of the infected wounds.
3. Synthesis and loading of a derivative of gamma tocopherol (2RS,7,8-Trimethyl-2-(4-methylpent-3-en-1-yl)-6-hydroxy-3-chromane) in exosomes and investigating its healing properties In Alzheimer's model in rat.
4. Preparation and evaluation of chitosan coated gemcitabine magnetic nanoparticles by microfluidic method and its effects on breast cancer cells in the presence of magnetic field with hyperthermia.
5. preparation and characterization of L-carnitine targeted chitosan nanoparticles to improve cellular uptake of Tacrolimus in oral drug delivery.
6. Evaluation of anti-eczema effects of cream containing date extract on patients with eczema.
7. Preparation of vancomycin blood concentration determination kit using IgY and gold nanoparticles in blood samples.
8. Synthesis, purification and characterization of vitamin E derivative (TPGS)

9. Preparation of liposome containing celecoxib by thin film method and determination of their physico-chemical characteristics.
10. Preparation of Liposomes containing Eucalyptus volatile oil by hydration film method and determination of their physico-chemical characteristics.
11. Preparation and Evaluation of Solid Lipid Nanoparticles (SLN) containing *Zataria Multiflora* volatile oil.
12. Preparation & characterization of bacterial liposome for development of drug delivery system.
13. Formulation of dendrimers of PAMAM G3- digoxin conjugate and determination of their Physico-chemical, pharmacologic, toxicologic and cell toxicity characteristics
14. Extraction of total saponin from *Glycyrrhiza glabra* and evaluation of antibacterial and antifungal activity.
15. Design and evaluation of the formulation of solid lipid nanoparticles of doxorubicin in order to increase the permeability of the blood-brain barrier in the simultaneous cell culture model.
16. Preparation of liposomes functionalized with aptamer containing 5-fluorouracil to achieve a targeted nano drug delivery system in cancer treatment
17. Shallomin liposomal gel: evaluation of the physicochemical properties of the final formulation and its clinical response to facial acne

Awards

- ✓ **The Superior Researcher of Khuzestan Province, Iran, 2018.**
- ✓ **Superior Researcher Student in Jundishapour University of Medical Sciences, Ahvaz Iran, 2014.**
- ✓ **Best Scientific oral Presentation Award in the 7th Congress of Students Research Congress of AJUMS. 2015, Ahvaz. Iran.**

- Scientific and Executive committee member of 7th Congress of Students Research Congress of AJUMS. 2015, Ahvaz. Iran.
- Scientific committee member and reviewer in 1st National Congress of Modern Sciences and Diseases, 2017. Ahvaz, Iran.

As Reviewer:

1. Thermochemica Acta (Netherlands)
2. Drug Development and Industrial Pharmacy (United States)
3. Brazilian Journal of Pharmacognosy (Brazil)
4. Drug Delivery (United Kingdom)
5. Jundishapur Journal of Natural Pharmaceutical Products (Iran)
6. Cutaneous And Ocular Toxicology (USA)
7. Journal of Cereal Science (USA)
8. ACS Omega (USA)
9. Artificial Cells, Nanomedicine and Biotechnology (USA)
10. Journal of the Mechanical Behavior of Biomedical Materials (Netherlands)
11. International Journal of Nanomedicine (New Zealand)
12. Journal of Nanobiotechnology (UK)
13. International Journal of Nanoscience and Nanotechnology (Iran)
14. Journal of Microencapsulation (UK)
15. Molecular Pharmaceutics (USA)
16. Bioengineering (Switzerland)
17. Vaccine (Switzerland)

18. Micromachines (Switzerland)
19. Processes (Switzerland)
20. Pharmaceuticals (Switzerland)
21. Acta Biomaterialia (Netherlands)

22. International Journal of Biological Macromolecules (Netherlands)
23. Biomedicines (Switzerland)
24. Inorganic Chemistry Communications (Netherlands)
25. Journal of Drug Delivery Science and Technology (France)
26. Heliyon (Netherlands)
27. Scientific Reports (United Kingdom)
28. International Journal of Pharmaceutics (Netherlands)
29. Cell Biochemistry and Biophysics (USA)
30. Journal of Chromatography B (Netherlands)
- 31.