Ali Dehshahri

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H-Index: 30, citations: 3000

Education:

- 1998-2004: Doctor of Pharmacy (Pharm.D.), Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.
- 2004-2009: Ph.D. in Pharmaceutical Biotechnology, Mashhad University of Medical Sciences, Mashhad, Iran.
- March-September 2007: Visiting Researcher, Department of Pharmacy, Munich Center of Nanoscience (CeNS), Ludwig-Maximilians University of Munich, Germany.
- August-September 2019: Visiting Researcher, Division of Pharmaceutical Technology, University of Basel, Switzerland.

Academic position:

- 2009-2015: Assistant professor, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.
- 2015-2020: Associate professor, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.
- 2023-now: Professor, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.

Research interests:

- Biotechnology
- Nanotechnology-based Delivery of Gene and Drug
- Cancer Immunotherapy
- Targeted Therapy
- Bioinformatics and Vaccine Design

Selected Publications:

- **Dehshahri A**, Oskuee RK, Shier WT, Hatefi A, Ramezani M. Gene transfer efficiency of high primary amine content, hydrophobic, alkyl-oligoamine derivatives of polyethylenimine. *Biomaterials*. 2009 Sep 1;30(25):4187-94. **(IF:15.304)**

- Casper J, Schenk SH, Parhizkar E, Detampel P, **Dehshahri A***, Huwyler J*. Polyethylenimine (PEI) in gene therapy: Current status and clinical applications. *Journal of Controlled Release*. 2023 Oct 1;362:667-91. **(IF: 11.467)**

- Mohammadinejad R, **Ali Dehshahri***, Madamsetty V.S, Zahmatkeshan M, Tavakol Sh, Makvandi P, Khorsandi D, Pardakhty A, Ashrafizadeh M, Ghasemipour Afshar E, Zarrabil A*, *In vivo* gene delivery mediated by non-viral vectors for cancer therapy. *Journal of Controlled Release.* 2020 Sep; 325: 249-275. **(IF: 11.467)**

- **Dehshahri A**, Ashrafizadeh M, Ghasemipour Afshar E, Pardakhty A, Mandegary A, Mohammadinejad R, Sethi G. Topoisomerase inhibitors: Pharmacology and emerging nanoscale delivery systems. *Pharmacological Research*. 2020 Jan;151:104551. (**IF: 10.334)**

- Nouri F, Sadeghpour H, Heidari R, **Dehshahri A***. Preparation, characterization, and transfection efficiency of low molecular weight polyethylenimine-based nanoparticles for delivery of the plasmid encoding CD200 gene. *International Journal of Nanomedicine*. 12:5557-5569. (**IF: 7.033)**

- Sheikhsaran F, Sadeghpour H, Khalvati B, Entezar-Almahdi E, **Dehshahri A***. Tetraiodothyroacetic acid-conjugated polyethylenimine for integrin receptor mediated delivery of the plasmid encoding IL-12 gene. *Colloids and Surfaces B: Biointerfaces*. 2017 Feb 1;150:426-36. **(IF:5.999)**

- Sadeghpour H, Khalvati B, Entezar-Almahdi E, Savadi N, Hossaini Alhashemi S, Raoufi M, **Dehshahri A***. Double domain polyethylenimine-based nanoparticles for integrin receptor mediated delivery of plasmid DNA. *Scientific Reports*. 2018 May 1;8(1):6842. **(IF:4.996)**

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- **Full list of Publications:**

(*Corresponding Author)

1. Ghorbani M, Namazi S, Dehghani M, Razi F, Khalvati B, **Dehshahri A***. Gene polymorphisms of TACR1 serve as the potential pharmacogenetic predictors of response to the neurokinin-1 receptor antagonist-based antiemetic regimens: a candidate-gene association study in breast cancer patients. *Cancer Chemotherapy and Pharmacology*. 2024 Apr 27:1-4. **(IF:3.00)**

2. Zarei M, Abedini B, **Dehshahri A**, Negahdaripour M. Peptide Engineering Approach to Introduce an Improved Calcitonin Mutant. *Molecular Biology*. 2024 Mar 17:1-3.**(IF: 1.2)**

3. Keshavarz V, Kazemi M, Khalvati B, Zare F, **Dehshahri A***, Sadeghpour H. Surface decoration of low molecular weight polyethylenimine (LMW PEI) by phthalated dextrin for improved delivery of interleukin-12 plasmid. *Biotechnology Progress*. 2024 Mar 10:e3443. (**IF: 2.9)**

4. Keshavarz V, Kazemi M, Khalvati B, **Dehshahri A***, Sadeghpour H. Self-Assembled Nanoparticle-Forming Derivatives of Dextrin-Conjugated Polyethylenimine Containing Urethane Bonds for Enhanced Delivery of Interleukin-12 Plasmid. *Current Nanoscience* (in-press). **(IF: 1.5)**

5. Ahmadi F, Ahmadi-Fakhr M, **Dehshahri A**, Parhizkar E. Synthesis and in vitro Evaluation of Levothyroxine-Targeted Paclitaxel-Dextran Conjugate for Drug Delivery to Cancer Cells. *Trends in Pharmaceutical Sciences*. 2023 Sep 1;9(3):213-20.

6. Casper J, Schenk SH, Parhizkar E, Detampel P, **Dehshahri A***, Huwyler J. Polyethylenimine (PEI) in gene therapy: Current status and clinical applications. *Journal of Controlled Release*. 2023 Oct 1;362:667-91. (**IF: 11.467)**

7. Ranjbar S, Emamjomeh A, Sharifi F, Zarepour A, Aghaabbasi K, **Dehshahri A**, Sepahvand AM, Zarrabi A, Beyzaei H, Zahedi MM, Mohammadinejad R. Lipid-Based Delivery Systems for Flavonoids and Flavonolignans: Liposomes, Nanoemulsions, and Solid Lipid Nanoparticles. *Pharmaceutics*. 2023 Jul 14;15(7):1944.**(IF: 6.525)**

8. Mozafari N, Mozafari N, **Dehshahri A***, Azadi A*. Knowledge Gaps in Generating Cell-Based Drug Delivery Systems and a Possible Meeting with Artificial Intelligence. *Molecular Pharmaceutics*. 2023 Jul 10. **(IF:5.364)**

9. Moradi A, Shahabinezhad F, **Dehshahri A***. An in-silico study to find potential effective circRNAs in the progression of Huntington's disease. *Iranian Journal of Basic Medical Sciences*. 2023;26(8):934.**(IF:2.532)**

10. Madamsetty VS, Vazifehdoost M, Alhashemi SH, Davoudi H, Zarrabi A, **Dehshahri A**, Fekri HS, Mohammadinejad R, Thakur VK. Next-generation hydrogels as biomaterials

for biomedical applications: exploring the role of curcumin. *ACS Omega.* 2023 Feb 28 (In-press) **(IF: 4.132) (presented on the cover page)**

11. Alhashemi SH, Ahmadi F, **Dehshahri A***. Lessons learned from COVID-19 pandemic: Vaccine platform is a key player. *Process Biochemistry*. 2023 Jan 1;124:269-79. **(IF: 4.885)**

12. Kazemi M, Parhizkar E, Samani SM, Firuzi O, Sadeghpour H, Ahmadi F, **Dehshahri A***. Targeted co-delivery of paclitaxel and anti P-gp shRNA by low molecular weight PEI decorated with L-3, 4-dihydroxyphenylalanine. *Biotechnology Progress*. 2022 Oct 28:e3310. (**IF: 2.909)**

13. Taghizadeh SM, Ghoshoon MB, Ghasemi Y, **Dehshahri A**, Berenjian A, Ebrahiminezhad A. Efficiency of magnetic immobilization for recombinant Pichia pastoris cells harvesting over consecutive production cycles. *Separation Science and Technology*. 2022 Sep 16:1-5. **(IF: 2.799)**

14. Zare F, Solhjoo A, Sadeghpour H, Sakhteman A, **Dehshahri A**. Structure-based virtual screening, molecular docking, molecular dynamics simulation and MM/PBSA calculations towards identification of steroidal and non-steroidal selective glucocorticoid receptor modulators. *Journal of Biomolecular Structure and Dynamics*. 2022 Sep 10:1-1. **(IF: 5.235)**

15. Pouya S, Kazemi M, Pouya S, **Dehshahri A***, Sobhani Z. Evaluation of CTAB coated gold nanoparticles as a potential carrier for gene delivery. *Trends in Pharmaceutical Sciences*. 2022 Sep 1;8(3):147-54.

16. De Marco R, **Dehshahri A**, Baiula M, Dodero V. Editorial: Integrin Ligands and Their Bioconjugate Systems: Synthesis, Conformation, and Biological Activity. *Frontiers in Chemistry*. 16 June 2022. 10: 954618. **(IF: 5.545)**

17. Mozafari N, **Dehshahri A**, Ashrafi H, Mohammadi-Samani S, Shahbazi MA, Heidari R, Azarpira N, Azadi A. Vesicles of yeast cell wall-sitagliptin to alleviate neuroinflammation in Alzheimer's disease. *Nanomedicine: Nanotechnology, Biology and Medicine*. 2022 Jun 14. 44, 102575. **(IF:6.458)**

18. **Dehshahri A**, Khalvati B, Taheri Z, Safari F, Mohammadinejad R, Heydari A. Interleukin-12 Plasmid DNA Delivery by N-[(2-Hydroxy-3-trimethylammonium)propyl]chitosan-Based Nanoparticles. *Polymers.* 2022,14, 2176. **(IF:4.967)**

19. Rahiminezhad Z, Tamaddon AM, **Dehshahri A**, Borandeh S, Abolmaali SS, Najafi H, AzarpiraN. PLGA-graphene quantum dot nanocomposites targeted against $\alpha_v\beta_3$ integrin receptor for sorafenib delivery in angiogenesis. *Biomaterials Advances*. 2022 11 May, 137, 212851. **(IF:7.328)**

20. Firouzabadi N, Javdani K, **Dehshahri A**. Interleukin-33 and Soluble ST2 as Potential Biomarkers of Cancer in Opium Users: A Nested Case-Control Study. *Iranian Journal of Medical Sciences*. 2022 Apr 27, 47 (6), 541-548.

21. Madamsetty VS, Mohammadinejad R, Uzieliene I, Nabavi N, **Dehshahri A**, García-Couce J, Tavakol S, Moghassemi S, Dadashzadeh A, Makvandi P, Pardakhty A. Dexamethasone: Insights into Pharmacological Aspects, Therapeutic Mechanisms, and Delivery Systems. *ACS Biomaterials Science & Engineering*. 2022 Apr 19. 8(5) 1763–1790 (**IF: 5.395)**

22. Alipour S, Shirazi HC, Kazemi M, **Dehshahri A***, Ahmadi F. Synthesis and cytotoxicity evaluation of doxorubicin-polyethyleneimine conjugate as a potential carrier for dual delivery of drug and gene. *Journal of Drug Delivery Science and Technology*. 2022 Feb 1; 68:102994. (**IF: 5.062)**

23. Ghorbani M, Dehghani M, Fahimfar N, Namazi S, **Dehshahri A***. FLOT (a chemotherapy regimen for gastric/esophagogastric junction cancer): to be treated as a highly emetogenic regimen or a moderately emetogenic one? Comparison of the emetogenic potential of FLOT versus FOLFOX and TAC regimens. *Supportive Care in Cancer*. 2022 Jan 17:1-9. (**IF: 3.359)**

24. Madamsetty VS, Tavakol S, Moghassemi S, Dadashzadeh A, Schneible JD, Fatemi I, Shirvani A, Zarrabi A, Azedi F, **Dehshahri A**, Afshar AA. Chitosan: A versatile bio-platform for breast cancer theranostics. *Journal of Controlled Release*. 2021 Dec 11. 341:733-752. **(IF: 11.4677)**

25. Varzandeh M, Mohammadinejad R, Esmaeilzadeh-Salestani K, **Dehshahri A**, Zarrabi A, Aghaei-Afshar A. Photodynamic therapy for leishmaniasis: recent advances and future trends. *Photodiagnosis and Photodynamic Therapy*. 2021 Oct 31:102609. (**IF: 3.577)**

26. Tagizadeh SM, Ebrahiminezhad A, Ghoshoon MB, **Dehshahri A**, Berenjian A, Ghasemi Y. Impacts of Magnetic Immobilization on the Growth and Metabolic Status of Recombinant *Pichia pastoris*. *Molecular biotechnology*. 2021 Oct **64**, 320-329. (**IF: 2.806)**

27. Mohammadinejad R, Madamsetty VS, Kumar A, Varzandeh M, **Dehshahri A**, Zarrabi A, Sharififar F, Mohammadi M, Fahimipour A, Ramakrishna S. Electrospun nanocarriers for delivering natural products for cancer therapy. *Trends in Food Science & Technolog*y. 2021 Dec 1;118:887-904. (**IF: 16.002)**

28. Mansouri K, Ahmadi F, **Dehshahri A***. Synthesis of L-DOPA conjugated doxorubicin-polyethylenimine nanocarrier and evaluation of its cytotoxicity on A375 and HepG2 cell lines. *Nanomedicine Journal*. 2021 Oct 1;8(4) 264-269.

29. Ghasemiyeh P, Mohammadi-Samani S, Firouzabadi N, **Dehshahri A**, Vazin A. A focused review on technologies, mechanisms, safety, and efficacy of available COVID-19 vaccines. *International immunopharmacology*. 2021 Sep 17:108162. (**IF: 5.714)**

30. Zarrinhaghighi A, Moradi A, **Dehshahri A***. Bioinformatics investigation of CRISPR/Cas systems in Bifidobacterium longum. *Trends in Pharmaceutical Sciences*. 2021 Sep 1;7(3):169-78.

31. Alipour S, Kalari S, Morowvat MH, Sabahi Z, **Dehshahri A***. Green Synthesis of Selenium Nanoparticles by Cyanobacterium Spirulina platensis (abdf2224): Cultivation Condition Quality Controls. *BioMed Research International*. 2021 May 30;2021. (**IF: 3.246)**

32. Parhizkar E, Rafieipour P, Sepasian A, Alemzadeh E, **Dehshahri A***, Ahmadi F. Synthesis and cytotoxicity evaluation of gemcitabine-tobacco mosaic virus conjugates. *Journal of Drug Delivery Science and Technolog*y. 2021 Apr 1;62:102388. (**IF: IF: 5.062)**

33. Karamikhah R, Azarpira N, Zareifar S, **Dehshahri A**, Namazi S, Anbardar MH, Karimzadeh I. The Effects of Three ABCG2 Polymorphisms on Outcome of Central Nervous System Relapses in Iranian Children With Acute Lymphoblastic Leukemia Receiving High Dose Methotrexate. *Acta Medica Iranica*. 2021 Mar 1;59(3) 133-141.

34. **Dehshahri A**, Kumar A, Madamsetty VS, Uzieliene I, Tavakol S, Azedi F, Fekri HS, Zarrabi A, Mohammadinejad R, Thakur VK. New horizons in hydrogels for methotrexate delivery. *Gels*. 2021 Mar;7(1):2. (**IF: 4.432)**

35. **Dehshahri A**, Biagioni A, Bayat H, Lee E, Hashemabadi M, Fekri HS, Zarrabi A, Mohammadinejad R, Kumar AP. Editing *SOX* genes by CRISPR-Cas: current insights and future perspectives. *International Journal of Molecular Sciences*. 2021 Jan;22(21):11321. (**IF: 6.208)**

36. Dorosti H, Nezafat N, Heidari R, Ghoshoon MB, Gholami A, **Dehshahri A**, Erfani N, Rahbar MR, Ghasemi Y. Production and immunological evaluation of epitope-based preventative pneumococcal candidate vaccine comprising immunodominant epitopes from PspA, CbpA, PhtD and PiuA antigens. *Current Pharmaceutical Biotechnology*. 2021;22(14):1900-9. (**IF: 2.829)**

37. Taghizadeh SM, Ghoshoon MB, Berenjian A, Ghasemi Y, **Dehshahri A**, Ebrahiminezhad A. Impacts of Magnetic Immobilization on the Recombinant Proteins Structure Produced in Pichia Pastoris System. *Molecular Biotechnology*. 2021 Jan;63(1):80-9. (**IF: 2.860)**

38. Mohammadinejad R, **Dehshahri A***, Madamsetty V.S, Zahmatkeshan M, Tavakol Sh, Makvandi P, Khorsandi D, Pardakhty A, Ashrafizadeh M, Ghasemipour Afshar E, Zarrabi A. In vivo gene delivery mediated by non-viral vectors for cancer therapy. *Journal of Controlled Release.*2020; 325, 249-275. (**IF: 11.467) (presented on the cover page)**

39. Mohammadinejad R, **Dehshahri A**, Sassan H, Behnam B, Ashrafizadeh M, Samareh Gholami A, Pardakhty A, Mandegary A. Preparation of carbon dot as a potential CRISPR/Cas9 plasmid delivery system for lung cancer cells. *Minerva Biotecnologica*.2020; 32(3),106-13. (**IF: 2.024)**

40. Firouzabadi N, Dashti M, **Dehshahri A**, Bahramali E. Biomarkers of IL-33 and sST2 and Lack of Association with Carvedilol Therapy in Heart Failure. *Clinical Pharmacology: Advances and Applications.* 2020; 12, 53-58.

41. Firouzabadi N, Haghnegahdar M, Khalvati B, **Dehshahri A**, Bahramali E. Overexpression of adiponectin receptors in opium users with and without cancer. *Clinical Pharmacology: Advances and Applications*. 2020; 12, 59-65.

42. Ghasemipour Afshar E, Zarrabi A, **Dehshahri A**, Ashrafizadeh M, Dehghannoudeh G, Behnam B, Mandegary A, Pardakhty A, Mohammadinejad R, Tavakol Sh. Graphene as a promising multifunctional nanoplatform for glioblastoma theranostic applications. *FlatChem*. 2020, 100173. (**IF: 5.829)**

43. Mohkam M, Taleban Y, Golkar N, Berenjian A, **Dehshahri A**, Mobasher MA, Ghasemi Y. Isolation and identification of novel l-Methioninase producing bacteria and optimization of its production by experimental design method. *Biocatalysis and Agricultural Biotechnology*. 2020, 101566.

44. **Dehshahri A**, Sadeghpour H, Mohazzabieh E, Saatchi Avval S, Mohammadinejad R. Targeted double domain nanoplex based on galactosylated polyethylenimine enhanced the delivery of IL-12 plasmid. *Biotechnology Progress*. 2020, e3002. (**IF: 2.909)**

45. Negahdaripour M, Nezafat N, Heidari R, Erfani N, Hajighahramani N, Ghoshoon MB, Shoolian E, Rahbar MR, Najafipour S, **Dehshahri A**, Morowvat MH, Ghasemi Y. Production and Preliminary in vivo Evaluations of a Novel in silico-Designed L2-based Potential HPV Vaccine. *Current Pharmaceutical Biotechnology*. 2020; 21 (4), 316-324. (**IF: 2.829)**

46. Araste F, Abnous K, Hashemi M, **Dehshahri A**, Detampel P, Alibolandi M, Ramezani M. Na+/K+ ATPase-targeted delivery to metastatic breast cancer models. *European Journal of Pharmaceutical Sciences*. 2020; 143, 105207. (**IF: 5.112)**

47. Mohammadinejad R, Sassan H, Pardakhty A, Hashemabadi M, Ashrafizadeh M, **Dehshahri A**, Mandegary A. ZEB1 and ZEB2 gene editing mediated by CRISPR/Cas9 in A549 cell line. *Bratislavske Lekarske Listy*.2020; 121 (1),31-36. (**IF: 1.564)**

48. Taghizadeh SM, Ebrahiminezhad A, Ghoshoon, **Dehshahri A**, Ghoshoon MB, Berenjian A, Ghasemi Y. Magnetic Immobilization of Pichia pastoris Cells for the Production of Recombinant Human Serum Albumin. *Nanomaterials*.2020; 10 (1), 111. (**IF: 5.719)**

49. Zarrinhaghighi A, Dehshahri A. An in Silico Approach to Find the Molecular Targets and Potential Candidates for SARS-CoV-2. *Trends in Pharmaceutical Sciences*. 2020; 6 (1), 11-20.

50. **Dehshahri A**, Ashrafizadeh M, Afshar EG, Pardakhty A, Mandegary A, Mohammadinejad R, Sethi G. Topoisomerase inhibitors: pharmacology and emerging nanoscale delivery systems. *Pharmacological Research*. 2019 Nov 17:104551. (**IF: 10.334)**

51. Dorosti H, Eslami M, Negahdaripour M, Ghoshoon MB, Gholami A, Heidari R, **Dehshahri A**, Erfani N, Nezafat N, Ghasemi Y. Vaccinomics approach for developing multi-epitope peptide pneumococcal vaccine. *Journal of Biomolecular Structure and*

Dynamics. 2019 Sep 2;37(13):3524-35. **(IF:5.235)**

52. Khalvati B, **Dehshahri A***. ShRNA-mediated knock-down of CD200 using the self-assembled nanoparticle-forming derivative of polyethylenimine. *Nanomedicine Journal*. 2019 Jul 1;6(3):195-206.

53. Hajighahramani N, Eslami M, Negahdaripour M, Ghoshoon MB, **Dehshahri A**, Erfani N, Heidari R, Gholami A, Nezafat N, Ghasemi Y. Computational design of a chimeric epitope-based vaccine to protect against *Staphylococcus aureus* infections. *Molecular and cellular probes*. 2019 Jun 21. 101414. **(IF:3.285)**

54. Alemzadeh E, **Dehshahri A**, Dehghanian AR, Afsharifar A, Behjatnia AA, Izadpanah K, Ahmadi F. Enhanced anti-tumor efficacy and reduced cardiotoxicity of doxorubicin delivered in a novel plant virus nanoparticle. *Colloids and Surfaces B: Biointerfaces*. 2019 Feb 1;174:80-6. **(IF:5.999)**

55. Mohammadinejad R, Dadashzadeh A, Moghassemi S, Ashrafizadeh M, **Dehshahri A**, Pardakhty A, Sassan HA, Sohrevardi SM, Mandegary A. Shedding light on gene therapy: carbon dots for the minimally invasive image-guided delivery of plasmids and noncoding RNAs. *Journal of Advanced Research*. 2019 Jan 18; 18:81-93. (**IF: 12.822)**

56. Kholghipour H, **Dehshahri A**, Mahmoudian H, Nabeiei P. Shiraz Pharmaceutical Students' Knowledge about Pharmacy Professional Ethics. *Journal of Medical Education*. 2019 Jan 8;17(3):168-174.

57. Mottaghi S, Azarpira N, **Dehshahri A**, Khalvati B, Namazi S. Evaluation of Angiotensinogen M235T and T174M Polymorphisms, Demographic and Clinical Factors in New-Onset Diabetes after Liver Transplantation in Iranian Patients. *International journal of organ transplantation medicine*. 2019;10(3):137-147.

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59. Alemzadeh E, **Dehshahri A**, Izadpanah K, Ahmadi F. Plant virus nanoparticles: novel and robust nanocarriers for drug delivery and imaging. *Colloids and Surfaces B: Biointerfaces*. 2018 Jul 1;167:20-27. **(IF:5.999)**

60. Sadeghpour H, Khalvati B, Entezar-Almahdi E, Savadi N, Alhashemi SH, Raoufi M, **Dehshahri A***. Double domain polyethylenimine-based nanoparticles for integrin receptor mediated delivery of plasmid DNA. *Scientific reports*. 2018 May 1;8(1):6842. **(IF:4.996)**

61. Sadeghpour H, Roshan Nasrabad K, Alipour Haghighi M, **Dehshahri A***. Preparation and characterization of celecoxib-conjugated polyethylenimine as a potential nanocarrier for gene delivery. *Trends in Pharmaceutical Sciences*. 2018 Mar 1;4(1).

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63. Fanian M, Bahmani M, Mozafari M, Naderi S, Zareie MA, Okhovat MA, Saberzadeh J, **Dehshahri A**, Takhshid MA. The Synergistic Effects of Celecoxib and Sodium Valproate on Apoptosis and Invasiveness Behavior of Papillary Thyroid Cancer Cell Line In-vitro. *Iranian Journal of Pharmaceutical Research: IJPR*. 2018;17(3):1008. **(IF:1.962)**

64. Mansouri SG, Zali-Boeini H, Zomorodian K, Khalvati B, Pargali RH, **Dehshahri A**, Rudbari HA, Sahihi M, Chavoshpour Z. Synthesis of novel naphtho [1, 2-e][1, 3] oxazines bearing an arylsulfonamide moiety and their anticancer and antifungal activity evaluations. *Arabian Journal of Chemistry*. 2017 Nov 2; 13(1):1271-82. **(IF:6.212)**

65. Negahdaripour M, Eslami M, Nezafat N, Hajighahramani N, Ghoshoon MB, Shoolian E, **Dehshahri A**, Erfani N, Morowvat MH, Ghasemi Y. A novel HPV prophylactic peptide vaccine, designed by immunoinformatics and structural vaccinology approaches. *Infection, Genetics and Evolution*. 2017 Oct 1;54:402-16. **(IF:4.393)**

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67. Khalvati B, Sheikhsaran F, Sharifzadeh S, Kalantari T, Behzad Behbahani A, Jamshidzadeh A, **Dehshahri A***. Delivery of plasmid encoding interleukin-12 gene into hepatocytes by conjugated polyethylenimine-based nanoparticles. *Artificial cells, nanomedicine, and biotechnology*. 2017 Jul 4;45(5):1036-44. (**IF: 6.355)**

68. Kianpour S, Ebrahiminezhad A, Mohkam M, Tamaddon AM, **Dehshahri A**, Heidari R, Ghasemi Y. Physicochemical and biological characteristics of the nanostructured polysaccharide-iron hydrogel produced by microorganism Klebsiella oxytoca. *Journal of basic microbiology*. 2017 Feb;57(2):132-40. (**IF: 2.650)**

69. Sheikhsaran F, Sadeghpour H, Khalvati B, Entezar-Almahdi E, **Dehshahri A***. Tetraiodothyroacetic acid-conjugated polyethylenimine for integrin receptor mediated delivery of the plasmid encoding IL-12 gene. *Colloids and Surfaces B: Biointerfaces*. 2017 Feb 1;150:426-36. **(IF:5.999)**

70. Naderian MA, Akbarizadeh AR, Jamshidzadeh A, **Dehshahri A***. Toxicity of Hexyl Acrylate Modified PAMAM Dendrimer. *Trends in Pharmaceutical Sciences.* 2018 Dec; 4(4): 235-240.

71. Nouri F, Sadeghpour H, Heidari R, **Dehshahri A***. Preparation, characterization, and transfection efficiency of low molecular weight polyethylenimine-based nanoparticles for delivery of the plasmid encoding CD200 gene. *International journal of nanomedicine*. 2017;12:5557-5569. **(IF:7.033)**

72. **Dehshahri A**, Sadeghpour H, Keykhaee M, Khalvati B, Sheikhsaran F. Enhanced delivery of plasmid encoding interleukin-12 gene by diethylene triamine penta-acetic acid (DTPA)-conjugated PEI nanoparticles. *Applied biochemistry and biotechnology*. 2016 May 1;179(2):251-69. **(IF:3.094)**

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74. Sabahi Z, Samani SM, **Dehshahri A***. Conjugation of poly (amidoamine) dendrimers with various acrylates for improved delivery of plasmid encoding interleukin-12 gene. *Journal of Biomaterials Appli*cations. 2015 Feb;29(7):941-53. **(IF:2.712)**

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- **Ph.D. Thesis:**

Ali Dehshahri (2009), Preparation and evaluation of transfection efficiency of modified polyethyleneimine (PEI)-based nanoparticles as non viral vectors used in gene therapy: effect of spermidine and diethylenetriamine shielded by galactose, Supported by the Research Council of Mashhad University of Medical Sciences, Mashhad, Iran.

- **Pharm.D. Thesis:**

Ali Dehshahri (2004), Biotransformation of hydrocortisone by *Nostoc sp*. Supported by the Research Council of Shiraz University of Medical Sciences, Shiraz, Iran.

- **Selected Abstracts and Congress Presentations:**

1. **9th International Conference on Nanostructured Materials, June 2008, Rio de Janeiro, Brazil.**

Presentation Topic/Title: Nanocarriers based on hydrophobic PEI-oligoamines for plasmid DNA transfer.

2. **12th Iranian Pharmaceutical Sciences Congress (IPSC 2010), August 2010, Iran**

   Presentation Topic/Title: Oligomerized polyethylenimine: novel nanoparticle (The best paper award)

3. **Nanotech Italy 2010, October 2010, Italy**
   Presentation Topic/Title: Less toxic, more efficient nanostructured complexes based on high molecular weight PEI for cancer gene therapy

4. **3rd European Science Foundation Summer School in Nanomedicine, June 2011, Germany**
   Presentation Topic/Title: Modification of PAMAM dendrimer leads to efficient nanocarriers for plasmid DNA delivery

5. **MipTec-The leading European Event for Drug Discovery, September 2012, Switzerland**
   Presentation Topic/Title: Modified nanodendrimers based on polyamidoamine for tumor cell gene delivery

6. **BIT's 1st Annual International Conference of Emerging Industry- November 2013, China**
   Presentation Topic/Title: Polymeric nanoparticles for plasmid DNA and siRNA delivery into cancer cells

7. **6th Iranian Controlled Release society Conference (ICRC2014) & 1st Middle East Controlled release Conference (MECR 2014), February 2014, Iran**
   Presentation Topic/Title: Interleukin-12 plasmid DNA delivery into hepatocytes using L-thyroxine conjugated polyethylenimine nanocarrier

8. **Bologna peptide 2016, February 2016, Italy**
   Presentation Topic/Title: Integrin receptor-mediated delivery of interleukin-12 plasmid by modified polyethylenimine-based nanoparticles

9. **2nd Iranian Nanomedicine Congress (INMC 2016), 2016, Iran**
   Presentation Topic/Title: Tetraiodothyroacetic acid-conjugated polyethylenimine for integrin receptor mediated delivery of the plasmid IL-12 gene (The best paper award)

10. **30 Years of Drug Delivery & Controlled release Society's Nordic Chapter Meeting, June 2017, Finland**
    Presentation Topic/Title: Polyethylenimine-based nanoparticles decorated with various integrin ligands mimicking RGD peptides for targeted delivery of plasmid DNA

11. **2nd Edition of Global Conference on Pharmaceutics and Drug Delivery Systems, June 2018, Italy**
    Presentation Topic/Title: polyethylenimine-based nanoparticles decorated with small molecules mimicking RGD peptide for targeted plasmid DNA delivery

12. **World Congress on Pharmaceutical Research and Toxicology, May 2024, Geneva, Switzerland**

Presentation Topic/Title: Small Library of Prednisolone and Budesonide Conjugated Low and High Molecular Weight Polyethylenimine Nanoparticles for Delivery of Plasmid DNA

- **Journal Editorial Board**

Guest editor, *Molecules* (Special Issue on new nanomaterials for diagnostic and drug delivery"), October 2022-now
Co-guest editor, *Frontiers in Chemistry*, August 2020-now
Associate Editorial Board Member, *Current Nanoscience*, 2018-now.

- **Teaching Experiences**

1- Principles of Protein and Peptide Formulation, Pharmaceutical Biotechnology Ph.D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
2- Quality Control of Biological Products, Pharmaceutical Biotechnology Ph.D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
3- Nanobiotechnology, Medical Biotechnology Ph.D. Program, Shiraz School of Advanced Medical Sciences and Technologies, Shiraz, Iran.
4- Chemistry of Proteins, Pharmaceutical Biotechnology Ph.D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
5- Animal Cell Culture, Pharmaceutical Biotechnology Ph.D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
6- Molecular Biology and Genetics, Pharm. D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
7- Pharmaceutical Biotechnology, Pharm. D. Program, Shiraz School of Pharmacy, Shiraz, Iran.
8- Supervision of 18 Ph.D and 25 Pharm.D. students from 2010-now.

- **Technical Expertise**

1. Dynamic light scattering (DLS-zeta potential), Co-supervisor, Nanotechnology and Cellular Characterization Lab.
2. Small animal bioluminescent imaging, Co-supervisor, Central Lab of Shiraz University of Medical Sciences.
3. Cell culture and cell-based bioassays, Supervisor, Pharmaceutical biotechnology lab.
4. Basic molecular biology techniques including PCR, real-time PCR, SDS-PAGE, Confocal microscopy, flow cytometry, etc.

- **Academic Memberships**

1. 2108-2023: National panel of experts in Pharmaceutical Biotechnology, Iranian Ministry of Health and Medical Education.
2. 2015-present: Research council of Shiraz University of Medical Sciences.

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