

Curriculum Vitae



PERSONAL INFORMATION

Name: Mehdi Dadashpour

Date of birth: May 5, 1982

Place of birth: Ahar, IRAN

Marital status: Married

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EDUCATIONAL BACKGROUND

Tabriz University of Medical Sciences, Tabriz, IRAN	Ph.D. in Medical Biotechnology	2012-2017
Shahed University Tehran, IRAN	M.Sc. in Microbial Biotechnolgy	2006-2008
Isfahan University, Isfahan, IRAN	B.Sc. in Microbiology	2001-2005

Ph.D. Thesis Title: Molecular and cellular effects of pure watercress extract and nanoformulate on proliferation of mesenchymal stem cell and cancer cell lines

Supervisors: Prof. Mohammad Nouri and Prof. Nosratollah Zarghami

M. Sc. Thesis Title: Antibacterial, mutagenesis, antimutagenes, cytotoxicity and antioxidant effects of *Thymus daenensis*

Supervisors: Prof. Iraj rasooli

RESEARCH INTERESTS

- Regenerative Medicine using stem cells and biomaterials
- Advanced scaffold design and bio-manufacturing
- Translation of Basic Research into Clinical Application
- Herbal extract and phytochemicals and their anticancer effects
- Antioxidant assay, new antioxidant design

CURRENT PROJECTS

- Design and Development of Chrysin nanoencapsulated PLGA-PEG for macrophage repolarization for tissue engineering
- Development of zeolite based nanocomposite scaffolds containing ascorbic acid and dexamethasone for osteoblastic differentiation and macrophage repolarization with the aim of using in bone regeneration

- Designing, synthesis and characterization of polymeric nanocomposite scaffolds containing Curcumin and Zeolite along with the study of their effects on osteoblastic differentiation and senescence of mesenchymal stem cells aiming to bone regeneration

TEACHING EXPERIENCES

Molecular Biotechnology, Genetic Engineering and Cell Culture (theoretical and laboratory) for undergraduate students at Islamic Azad Universities of Tabriz and Ahar (2012- present)

SKILLS/INTERESTS

- **Lab Techniques:** Polymer synthesis, nanoparticle and nanofiber fabrication, stem cell isolation and culturing, DNA/RNA gel electrophoresis, cellular DNA/RNA isolation, RT PCR, real-time PCR
- **Computer skills:** General computer skills, Office collections, Endnote, Bioinformatics software (Primer3, Mega4, Oligo7, BLUST, Alignment) and Statistical software (SPSS).
- **Language:** Azeri (Native), Persian (Fluent), English (advanced), Turkish (advanced)
- **Interests:** Football, Traveling, swimming.

PUBLICATIONS

- 1-**Dadashpour, M.**, Pilehvar-Soltanahmadi, Y., Mohammadi, S.A., Zarghami, N., Pourhassan-Moghaddam, M., Alizadeh, E., Jafar Maleki, M., Firouzi-Amandi, A. and Nouri, M., 2017. Watercress-based electrospun nanofibrous scaffolds enhance proliferation and stemness preservation of human adipose-derived stem cells. *Artificial Cells, Nanomedicine, and Biotechnology*, pp.1-12. **IF: 4.46**
- 2- **Dadashpour M**, Pilehvar- Soltanahmadi Y, Zarghami N, Firouzi- Amandi A, Pourhassan-Moghaddam M, Nouri M. Emerging importance of phytochemicals in regulation of stem cells fate via signaling pathways. *Phytotherapy Research*. 2017 Aug 31. **IF: 3.7**

- 3- Yousefi, M., **Dadashpour, M.**, Hejazi, M., Hasanzadeh, M., Behnam, B., de la Guardia, M., Shadjou, N. and Mokhtarzadeh, A., 2017. Anti-bacterial activity of graphene oxide as a new weapon nanomaterial to combat multidrug-resistance bacteria. *Materials Science and Engineering: C*. **IF: 4.9**
- 4-**Dadashpour, M.**, Firouzi-Amandi A, Pourhassan-Moghaddam, M, Maleki, MJ, Soozangar N, Jeddi F, Nouri M, Zarghami N, Soltanahmadi, YP., Biomimetic synthesis of silver nanoparticles using *Matricaria chamomilla* extract and their potential anticancer activity against human lung cancer cells. *Materials Science & Engineering C* 92 (2018) 902–912 **IF: 4.9**
- 5-Mellatyar H, Talaei S, Pilehvar-Soltanahmadi Y, **Dadashpour M**, Barzegar A, Akbarzadeh A, Zarghami N. 17-DMAG-loaded nanofibrous scaffold for effective growth inhibition of lung cancer cells through targeting HSP90 gene expression. *Biomedicine & Pharmacotherapy*. 2018 Sep 30;105:1026-32. **IF: 3.7**
- 6- Chatran M, Pilehvar-Soltanahmadi Y, **Dadashpour M**, Faramarzi L, Rasouli S, Jafari-Gharabaghloou D, Asbaghi N, Zarghami N. Synergistic Anti-proliferative Effects of Metformin and Silibinin Combination on T47D Breast Cancer Cells via hTERT and Cyclin D1 Inhibition. *Drug Research*. 2018 Jun 19. **Scopus**
- 7- Deldar, Y., Pilehvar-Soltanahmadi, Y., **Dadashpour, M.**, Montazer Saheb, S., Rahmati-Yamchi, M. and Zarghami, N., 2017. An in vitro examination of the antioxidant, cytoprotective and anti-inflammatory properties of chrysin-loaded nanofibrous mats for potential wound healing applications. *Artificial Cells, Nanomedicine, and Biotechnology*, pp.1-11. **IF: 4.46**
- 8- Farajzadeh, R., Pilehvar-Soltanahmadi, Y., **Dadashpour, M.**, Javidfar, S., Lotfi-Attari, J., Sadeghzadeh, H., Shafiei-Irannejad, V. and Zarghami, N., 2017. Nano-encapsulated metformin-curcumin in PLGA/PEG inhibits synergistically growth and hTERT gene expression in human breast cancer cells. *Artificial Cells, Nanomedicine, and Biotechnology*, pp.1-9. **IF: 4.46**
- 9- Pilehvar-Soltanahmadi, Y. **Dadashpour, M.** and Zarghami, N, Sheervalilou, R., Fattahi, A., Mohajeri, A.,, 2017. An Overview on Application of Natural Substances Incorporated with Electrospun Nanofibrous Scaffolds to Development of Innovative Wound Dressings. *Mini reviews in medicinal chemistry* **IF: 2.9**

10. Maasomi, Z.J., Soltanahmadi, Y.P., **Dadashpour, M.**, Alipour, S., Abolhasani, S. and Zarghami, N., 2017. Synergistic anticancer effects of silibinin and chrysin in T47D breast cancer cells. *Asian Pacific Journal of Cancer Prevention*, 18(5), pp.1283-1287. **IF: 1.2**
- 11- Mohammadian, F., Pilehvar-Soltanahmadi, Y., Alipour, S., **Dadashpour, M.**, Zarghami, N., Mohammadian, F., Abhari, A., Dariushnejad, H., Ema, A., Yamashita, K. and Sakuramoto, S., 2016. Chrysin Alters microRNAs Expression Levels in Gastric Cancer Cells: Possible Molecular Mechanism. *Drug Research*, 9, pp.e4190-75. **Scopus**
- 12-Lotfi-Attari J, Pilehvar-Soltanahmadi Y, **Dadashpour M**, Alipour S, Farajzadeh R, Javidfar S, Zarghami N. Co-Delivery of Curcumin and Chrysin by Polymeric Nanoparticles Inhibit Synergistically Growth and hTERT Gene Expression in Human Colorectal Cancer Cells. *Nutrition and Cancer*. 2017 Oct 27:1-0. **IF: 2.3**
- 13- Deldar Y, Zarghami F, Pilehvar-Soltanahmadi Y, **Dadashpour M**, Zarghami N. Antioxidant effects of chrysin-loaded electrospun nanofibrous mats on proliferation and stemness preservation of human adipose-derived stem cells. *Cell and Tissue Banking*. 2017 Aug 14:1-3.
- 14-A Jalil zadeh S, , Pilehvar-Soltanahmadi Y, **Dadashpour M**, Zarghami N Biomimetic Emu Oil-Blended Electrospun Nanofibrous Mat for Stemness Maintaining of Adipose Tissue Derived Stem Cells, *Biopreservation and Biobanking*, 2018 Feb 15:1(23):120-136 **IF: 1.8**
- 15- **Dadashpour M**, Rasooli I, Sefidkon F, Rezaei MB, Darvish Alipour A, Astaneh S. Lipid peroxidation inhibition, superoxide anion and nitric oxide radical scavenging properties of *Thymus daenensis* and *Anethum graveolens* essential oils. *Journal of Medicinal Plants*. 2011 Mar 15;1(37):109-20. **ISC**
- 16- **Dadashpour M**, Rasooli I, Sefidkon F, Taghizadeh M, Darvish Alipour A, Astaneh S. Antimicrobial, nitric oxide radical scavenging and cytotoxic properties of *Thymus daenensis* essential oil.
- 17- **Dadashpour M**, Rasooli I, Sefidkon F, Taghizadeh M, Darvish Alipour A, Astaneh S. Comparison of Ferrous Ion Chelating, Free Radical Scavenging and Anti Tyrosinase Properties of *Thymus Daenensis* Essential Oil with Commercial Thyme Oil and Thymol. *ZUMS Journal*. 2011 Jun 1;19(77):41-52.

- 18- **Dadashpour M**, Rasooli I, Rezaei MB, Sefidkon F, Taghizadeh M, Darvish Alipour A, Astaneh S. Ferrous ion chelating, nitric oxide radical scavenging and cytotoxicity of *Satureja sahendica* Bornm. essential oil. *Daneshvar*. 2011 Mar 15;18(91):29-36.
- 19- **Dadashpour M**, Rasooli I, Rezaei MB, Sefidkon F, Taghizadeh M, Darvish Alipour A, Astaneh S. Antimicrobial, Antioxidative, Superoxide Anion Radical Scavenging And Anti Tyrosinase Properties Of *Satureja sahendica* Bornm. And *Satureja hortensis* L. Essential Oils.
- 20- **Dadashpour M**, Rasouli I, Sefidkon F, Taghizadeh M, Astaneh SD. Antimicrobial, antioxidant and cytotoxic properties of essential oil of *Anethum graveolens* L. *Iranian Journal of Medicinal and Aromatic Plants*. 2013;29(1).
- 21- Allahbakhshian Fm, Amirizadeh N, Forouzandeh M, Soleimani M, Pourfathollah Aa, **Dadashpour M**, Tgf-Breceptor2 Knocked Down By Sirna Increases Cord Blood Cd34+ Hscs Self-Renewal.
- 22- Jafari-Gharabaghloou D, Pilehvar-Soltanahmadi Y, **Dadashpour M**, Mota A, Vafajouy-Jamshidi S, Faramarzi L, Rasouli S, Zarghami N. Combination of metformin and phenformin synergistically inhibits proliferation and hTERT expression in human breast cancer cells. *Iranian journal of basic medical sciences*. 2018 Nov;21(11):1167. **IF: 1.8**
- 23- Firouzi-Amandi A, **Dadashpour M**, Nouri M, Zarghami N, Serati-Nouri H, Jafari-Gharabaghloou D, Karzar BH, Mellatyar H, Aghebati-Maleki L, Babaloo Z, Pilehvar-Soltanahmadi Y. Chrysin-nanoencapsulated PLGA-PEG for macrophage repolarization: Possible application in tissue regeneration. *Biomedicine & Pharmacotherapy*. 2018 Sep 30;105:773-80. **IF: 3.7**
- 24- Pourhassan-Moghaddam M, Maleki MJ, Ghasemi YG, Asadi NA, **Dadashpour M**, Ivatloo BM, Akbarzadeh AA, Zarghami N. The effect of green GO/Au nanocomposite on in vitro amplification of human DNA. *IET Nanobiotechnology*. 2019 Jan 28. **IF: 1.7**
- 25- Jeddi F, Alipour S, Najafzadeh N, **Dadashpour M**, Pouremamali F, Sadeghi MR, Samadi N, Soozangar N, Khamaneh AM. Reduced Levels of miR-28 and miR-200a Act as Predictor Biomarkers of Aggressive Clinicopathological Characteristics in Gastric Cancer Patients. *Galen Medical Journal*. 2019 Jan 25;8:1329.

- 26- Javan N, Khadem Ansari M,H, Pilehvar-Soltanahmadi, **Dadashpou M**, Rahmati-Ymachi M, Zarghami, N Synergistic anti-proliferative effects of co-nanoencapsulated Curcumin and Chrysin on MDA-MB-231 breast cancer cells through up-regulating miR-132 and miR-502c, *Nutrition and Cancer*. 2019 Feb 27:1-0. **IF: 2.3**
- 27- Faramarzi L, **Dadashpour, M**, Mahdavi M, Zarghami, Z, Enhanced inhibitory effects of Metformin-loaded PLGA-PEG nanoparticles on the growth and gene expression of hTERT in ovarian cancer cells, *Journal of Pharmacy and Pharmacology* 2019, Feb **IF: 2.39**
- 28- Rasouli S, Montazeri M, Mashayekhi S, Sadeghi-Soureh S, **Dadashpour M**, Mousazadeh H, Nobakht A, Zarghami N, Pilehvar-Soltanahmadi Y. Synergistic anticancer effects of electrospun nanofiber-mediated codelivery of Curcumin and Chrysin: Possible application in prevention of breast cancer local recurrence. *Journal of Drug Delivery Science and Technology*. 2020 Feb 1;55:101402. **IF: 2.6**
- 29- Norouzi M, Yasamineh S, Montazeri M, **Dadashpour M**, Sheervalilou R, Pilehvar-Soltanahmadi Y. Recent advances on nanomaterials-based fluorimetric approaches for microRNAs detection. *Materials Science and Engineering: C*. 2019 Jul 19:110007. **IF: 4.6**
- 39**-Serati-Nouri H, Jafari A, Roshangar L, **Dadashpour M**, Pilehvar-Soltanahmadi Y, Zarghami N. Biomedical applications of zeolite-based materials: A review. *Materials Science and Engineering: C*. 2020 Jun 20:111225.
- 40-Abbasi A, **Dadashpour M**, Alipourfard I. Calculation of radium-223 and actinium-225 α -emitter radiopharmaceuticals dose rates in treatment of metastatic castration-resistant prostate cancer.
- 41-Nejati K, **Mehdi D**, Ghareghomi S, Mostafavi E, Ebrahimi-Kalan A, Biglari A, Alizadeh E, Mortazavi Y, Zarghami N. GDNF gene-engineered adipose-derived stem cells seeded Emu oil-loaded electrospun nanofibers for axonal regeneration following spinal cord injury. *Journal of Drug Delivery Science and Technology*. 2020 Sep 15:102095.
- 42-Izadi M, Tahmasebi S, Pustokhina I, Yumashev AV, Lakzaei T, Alvanegh AG, Roshangar L, Yousefi M, Ahmadi M. Changes in Th17 cells frequency and function after ozone therapy used to treat multiple sclerosis patients. *Multiple Sclerosis and Related Disorders*. 2020 Aug 24:102466.

PRESENTATIONS

1-Mehdi dadashpour, Yones Pilehvar-soltanahmadi, Nosratolah Zarghami, Mohammad Pourhassan-Moghaddam, Akram Firouzi-Amandi, Kazem Nejati-koshki Muhammad- jaafar maleki, Mohammad nouri. The Role Of Nanofiber Scaffolds In Proliferation And Stemness Preservation Of Stem Cells. stem cells & regenerative medicine congress Mashhad, april 19-21.2017

2-Mehdi Dadashpour, Akram Firouzi-Amandi, Mohammad Nouri, Proliferation and Stemness Preservation of Mesenchymal Stem Cells on Nasturtium officinale incorporated PCL/PEG Electrospun Fibers. The Second National Festival & International Congress on Stem Cell & Regenerative Medicine Tehran, I.R. of Iran 13-15 July 2017.

3-Mehdi Dadashpour, Younes Pilehvar-Soltanahmad1, Nosratollah Zarghami, Mohammad pourhassan-moghadam, Akram Firouzi Amandi, Muhammad Jafar Maleki, Mohammad Nouri). Watercress-Loaded PLGA-PEG Nanoparticles Designed for Enhanced Effect on The Lung Cancer Cell Line. International Congress of prevention and early detection integration of research and action Tehran, I.R. of Iran 28-30 January 2017.

4-Rana Farajzadeh, Younes pilehvar –Soltanahmadi, **Mehdi dadashpour**, Javi Lotfi, Ranna Bagheri, Shahrzad Javidfar, Nosratollah Zarghami. *Inhibitory Effect of Nanoparticle Encapsulated Metformin and Curcumin on Telomerase Gene Expression in Breast Cancer T-47D Cell Line*. International Congress of prevention and early detection integration of research and action Tehran, I.R. of Iran 28-30 January 2017.

5-Shahrzad Javidfar, Younes pilehvar–Soltanahmadi, **Mehdi dadashpour**, Rana Farajzadeh, Ranna Bagheri, Javi Lotfi atthari, Nosratollah Zarghami .*Effect of Metformin-loaded PLGA-PEG Nanoparticles on Telomerase Gene Expression in Breast Cancer Cell Line*. International

Congress of prevention and early detection integration of research and action Tehran, I.R. of Iran
28-30 January 2017.

6-Javi Lotfi atthari, Younes pilehvar–Soltanahmadi, **Mehdi dadashpour**, Rana Farajzadeh, Ranna Bagheri, Shahrzad Javidfar, Nosratollah Zarghami. *Effect of phytochemical agent, curcumin and chrysin, free and nanoparticle encapsulated on telomerase gene expression in CaCo2 cancer cell line*. International Congress of prevention and early detection integration of research and action Tehran, I.R. of Iran 28-30 January 2017.

7-Mina Chatran, Younes pilehvar–Soltanahmadi, Shariyar Alipour, **Mehdi dadashpour**, Nosratollah Zarghami. *Inhibitory Effect of Nanoparticle Encapsulated Metformin and Curcumin on Telomerase Gene Expression in Breast Cancer T-47D Cell Line*. International Congress of prevention and early detection integration of research and action Tehran, I.R. of Iran 28-30 January 2017.

8- Akram Firouzi Amandi, Zohreh Babaloo, Younes Pilehvar-Soltanahmad, Leili Aghebati-Maleki, Farhad Jadidi-Niaragh, **Mehdi Dadashpour***. *Macrophage repolarization using PLGA-PEG nanoparticles containing Chrysin: possible application in regenerative medicine*. ISIA, 14th International Congress of Immunology and Allergy (ICIA2018). 26-28 April 2018, Tehran, I.R.Iran.

9- Fereshteh Mogherri, Akram Firouzi amandi, **Mehdi Dadashpour**. *Synthesis and characterization of Rutin-Loaded PLGA Nanoparticles: Potential application in breast cancer treatment*. 10th international tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

10- Fereshteh Mogherri, Akram Firouzi amandi, **Mehdi Dadashpour**. *An implantable rutin incorporated electrospun nanofibers for potential postsurgical breast cancer treatment*. , 23-25 Oct 2019. Tehran. Iran

11- Akram Mohammadi1, Mehdi Dadashpour, Yones Pilehvar-soltanahmadi, Sara Nourozi Dizach, Nosratollah Zarghami. *Potential applications of curcumin and nanotechnology-based formulations in cancer prevention and therapy by regulation of Mir-132*. , 10th international tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

12- Sara Nourozi Dizach, **Mehdi Dadashpour**, Yones Pilehvar-soltanahmadi, Akram Mohammadi Nosratollah Zarghami. *Antiproliferative And Apoptotic Effect Of Metformin-Loaded PLGA-PEG Nanoparticles On Breast Cancer Cells Through Upregulating Mir-132*. 10th international tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

13- Aralani, **Mehdi Dadashpour**, Yones Pilehvar-soltanahmadi, Nosratollah Zarghami. *Metformin-Loaded PLGA-PEG Nanoparticles Designed for Enhanced Effect on the Breast Cancer Cell Line.3*, 10th international Tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

14- Akram Mousapour, **Mehdi Dadashpour**, Yones Pilehvar-soltanahmadi, Nosratollah Zarghami. *Design and characterization of Silibinin loaded PLGA-PEG Nanoparticles as targeted drug deliver for breast cancer treatment*. 10th international Tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

15- Fatemeh lotfi, **Mehdi Dadashpour**, Yones Pilehvar-soltanahmadi, Nosratollah Zarghami. *Combination of Metformin and Silibinin loaded magnetic nanoparticles synergistically inhibits leptin and its receptor expression in A549 human lung cancer cells*. 10th international Tehran breast cancer congress, 23-25 Oct 2019. Tehran. Iran

BOOKS

1- Asadi S, **Dadashpour M**, Alipour S, Firuozi AA, Bagheri R, Jamali M, Pathology in Medical Genetics 4,2018. Persian in press.

2-Asadi S, **Dadashpour M**, Alipour S, Firuozi AA, Bagheri R, Jamali M, Pathology in Medical Genetics 5,2018. Persian in press.

3-Asadi S, **Dadashpour M**, Alipour S, Firuozi AA, Bagheri R, Jamali M, Pathology in Medical Genetics 7,2018. Persian in press.

4-Asadi S, **Dadashpour M**, Alipour S, Firuozi AA, Bagheri R, Jamali M, Pathology in Medical Genetics 8,2018. Persian in press.

AWARDS

- Top researcher of Ph.D. in Tabriz University of Medical Sciences, 1396

- Top researcher on the subject of clause "K" of the regulations on educational, research and special welfare facilities for brilliant talents in the first quarter of 1397 by the National Student Research Committee.

Patent

-Dadashpour, M, Firouzi-Amandi A, Nouri M, Zarghami N, Soltanahmadi, YP, Fabrication of watercress extract based PCI-PEG electrospun nanofibrous scaffold to support proliferation and stemness preservation of Adipose derived mesenchymal stem cells. 1396, 139650140003010740

REFERENCES

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