

CURRICULUM VITAE

CONTACT INFORMATION:

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PERSONAL INFORMATION:

Citizenship: Iranian
Education: PhD (clinical biochemistry)
Sex: Female

EMPLOYMENT HISTORY:

- Assistant Professor, Urmia University of Medical Sciences, Urmia, Iran (2023-2025)
- Editorial Board, The Open Biochemistry Journal, Bentham Science, UAE (2025)
- Editorial Board, The Open Medical Chemistry Journal, Bentham Science, UAE (2025)

TEACHING

- Teaching Biochemistry for medical Students in Tabriz University of Medical Sciences, Tabriz, Iran (2018)
- Teaching Biochemistry for medical Students in Urmia University of Medical Sciences, Urmia, Iran (2022-2024)
- Teaching Biochemistry for Master and PhD Students in Urmia University of Medical Sciences, Urmia, Iran (2022-2024)
- Teaching Biochemistry for nurse and midwife Students in Urmia University of Medical Sciences, Urmia, Iran (2022-2024)
- Teaching Biochemistry for medical Students in Urmia University of Medical Sciences, Urmia, Iran (2022-2025)
- Teaching Biochemistry for dentistry Students in Urmia University of Medical Sciences, Urmia, Iran (2023-2025)

EDUCATION:

- Study of clinical biochemistry (Ph.D) at Urmia University of Medical Sciences, Urmia-Iran (2021). Thesis title: Evaluation of the effect of quercetin and fisetin on energy sensors, AMPK and SIRT-1, in rat model of polycystic ovary syndrome.
- Study of clinical biochemistry (MS.c) at Tabriz University of Medical Sciences, Tabriz-Iran. (2016). Thesis title: Comparison of Vaspin serum levels and its correlation with nitric oxide metabolites in nephropatic and non nephropatic diabetic patients.

- Study of clinical biochemistry () at Urmia University of Medical Sciences, Urmia-Iran (2013).

RESAERCHS:

1. Comparison of vaspin serum levels and its correlation with nitric oxide metabolites in nephropatic and non nephropatic diabetic patients (completed)
2. Evaluating the effect of Syringic acid on proliferation, autophagy and apoptosis through regualtion of oxidative stress and cell growth proteins in colorectal cancer SW-480 cell line (completed)
3. The effects of oral methylnicotinamide and vanillic acid on testosterone production and insulin function in adipose and ovarian tissues in rat model of PCOS (completed)
4. Evaluating the role of VE-822 in reducing the drug resistance of Caco-2 colorectal cancer cell line to 5-fluorouracil through DNA damage (ongoing in Urmia)
5. Evaluation of WEE1 inhibition by AZD1775 on SW-480 cell susceptibility to VE-822-induced DNA damage and apoptosis (ongoing in Urmia)
6. Evaluating the role of miR-146a in the drug resistance of Caco-2 colorectal cancer cell line to 5-fluorouracil through DNA damage (ongoing in Urmia)
7. Evaluating the effect of Quercetin on apoptosis and sensitivity of the colon cancer cells to 5-flurouracil via DNA damage and P-glycoprotein (ongoing in Urmia)
8. Evaluating the role of Diosgenin in reversing the drug resistance against 5-flourouracil in the colorectal cancer cells via P-glycoprotein (ongoing in Urmia)
9. Evaluating the effects of combination therapy of miR-383-5p and 5-fluorouracil on the sensitivity of SW-480 colorectal cancer cells to apoptosis (ongoing in Urmia)
10. Evaluating the effect of polyethylene glycol-grafted halloysite nanotubes containing quercetin on the cytotoxicity of 5-fluorouracil in SW-480 cell line of colorectal cancer (ongoing in Urmia)

PUBLICATIONS:

• PAPERS

1. Mihanfar A, Nouri M, Roshangar L, Khadem-Ansari MH. Ameliorative effects of fisetin in letrozole-induced rat model of polycystic ovary syndrome. *The Journal of Steroid Biochemistry and Molecular Biology*. 2021;213:105954.
2. Mihanfar A, Nouri M, Roshangar L, Khadem-Ansari MH. Therapeutic potential of quercetin in an animal model of PCOS: Possible involvement of AMPK/SIRT-1 axis. *European journal of pharmacology*. 2021;900:174062.
3. Mihanfar A, Nouri M, Roshangar L, Khadem-Ansari MH. Polyphenols: Natural compounds with promising potential in treating polycystic ovary syndrome. *Reproductive biology*. 2021;21(2):100500.

4. Mihanfar A, Targhazeh N, Sadighparvar S, Darband SG, Majidinia M, Yousefi B. Doxorubicin loaded magnetism nanoparticles based on cyclodextrin dendritic-graphene oxide inhibited MCF-7 cell proliferation. *Biomolecular concepts*. 2021;12(1):8-15.
5. Mihanfar A, Akbarzadeh M, Ghazizadeh Darband S, Sadighparvar S, Majidinia M. SIRT1: A promising therapeutic target in type 2 diabetes mellitus. *Archives of Physiology and Biochemistry*. 2024;130(1):13-28.
6. Mihanfar A, Darband SG, Sadighparvar S, Kaviani M, Mirza-Aghazadeh-Attari M, Yousefi B, et al. In vitro and in vivo anticancer effects of syringic acid on colorectal cancer: Possible mechanistic view. *Chemico-Biological Interactions*. 2021;337:109337.
7. Mihanfar A, Nejabati HR, Fattahi A, Latifi Z, Pezeshkian M, Afrasiabi A, et al. The role of sphingosine 1 phosphate in coronary artery disease and ischemia reperfusion injury. *Journal of Cellular Physiology*. 2019;234(3):2083-94.
8. Mihanfar A, Yousefi B, Darband SG, Sadighparvar S, Kaviani M, Majidinia M. Melatonin increases 5-fluorouracil-mediated apoptosis of colorectal cancer cells through enhancing oxidative stress and downregulating survivin and XIAP. *BioImpacts: BI*. 2020;11(4):253.
9. Mihanfar A, Nejabati HR, Fattahi A, Faridvand Y, Pezeshkian M, Jodati AR, et al. SIRT3-mediated cardiac remodeling/repair following myocardial infarction. *Biomedicine & Pharmacotherapy*. 2018;108:367-73.
10. Mihanfar A, Rahmati-Yamchi M, Mota A, Abediazar S, Pilehvar-Soltanahmadi Y, Zarghami N. Serum levels of vaspin and its correlation with nitric oxide in type 2 diabetic patients with nephropathy. *Current diabetes reviews*. 2018;14(2):162-7.
11. Sadigh AR, Mihanfar A, Fattahi A, Latifi Z, Akbarzadeh M, Hajipour H, et al. S100 protein family and embryo implantation. *Journal of Cellular Biochemistry*. 2019;120(12):19229-44.
12. Nejabati HR, Mihanfar A, Pezeshkian M, Fattahi A, Latifi Z, Safaie N, et al. N1-methylnicotinamide (MNAM) as a guardian of cardiovascular system. *Journal of cellular physiology*. 2018;233(10):6386-94.
13. Mihanfar A, Aghazadeh Attari J, Mohebbi I, Majidinia M, Kaviani M, Yousefi M, et al. Ovarian cancer stem cell: A potential therapeutic target for overcoming multidrug resistance. *Journal of Cellular Physiology*. 2019;234(4):3238-53.
14. Mihanfar A, Fattahi A, Nejabati HR. MicroRNA-mediated drug resistance in ovarian cancer. *Journal of cellular physiology*. 2019;234(4):3180-91.
15. Mihanfar A, Sadigh AR, Fattahi A, Latifi Z, Hasanzadeh-Moghadam M, Samadi M, et al. Endothelins and their receptors in embryo implantation. *Journal of Cellular Biochemistry*. 2019;120(9):14274-84.
16. Mihanfar A, Shakouri SK, Khadem-Ansari MH, Fattahi A, Latifi Z, Nejabati HR, et al. Exosomal miRNAs in osteoarthritis. *Molecular Biology Reports*. 2020;47(6):4737-48.
17. Majidinia M, Mihanfar A, Rahbarghazi R, Nourazarian A, Bagca B, Avci ÇB. The roles of non-coding RNAs in Parkinson's disease. *Molecular biology reports*. 2016;43(11):1193-204.
18. Akbarzadeh M, Mihanfar A, Akbarzadeh S, Yousefi B, Majidinia M. Crosstalk between miRNA and PI3K/AKT/mTOR signaling pathway in cancer. *Life sciences*. 2021;285:119984.
19. Abdollahzade N, Mihanfar A, Majidinia M. Molecular mechanisms underlying ameliorative impact of melatonin against age-dependent chronic arsenic toxicity in rats' brains. *Journal of Experimental Zoology Part A: Ecological and Integrative Physiology*. 2022;337(9-10):1010-24.
20. Mirza-Aghazadeh-Attari M, Darband SG, Kaviani M, Mihanfar A, Attari JA, Yousefi B, et al. DNA damage response and repair in colorectal cancer: Defects, regulation and therapeutic implications. *DNA repair*. 2018;69:34-52.

21. Nejabati HR, Samadi N, Shahnazi V, Mihanfar A, Fattahi A, Latifi Z, et al. Nicotinamide and its metabolite N1-Methylnicotinamide alleviate endocrine and metabolic abnormalities in adipose and ovarian tissues in rat model of Polycystic Ovary Syndrome. *Chemico-Biological Interactions*. 2020;324:109093.
22. Mirza-Aghazadeh-Attari M, Ostadian C, Saei AA, Mihanfar A, Darband SG, Sadighparvar S, et al. DNA damage response and repair in ovarian cancer: Potential targets for therapeutic strategies. *DNA repair*. 2019;80:59-84.
23. Majidinia M, Mirza-Aghazadeh-Attari M, Rahimi M, Mihanfar A, Karimian A, Safa A, et al. Overcoming multidrug resistance in cancer: Recent progress in nanotechnology and new horizons. *IUBMB life*. 2020;72(5):855-71.
24. Mirza-Aghazadeh-Attari M, Mohammadzadeh A, Mostavafi S, Mihanfar A, Ghazizadeh S, Sadighparvar S, et al. Melatonin: an important anticancer agent in colorectal cancer. *Journal of cellular physiology*. 2020;235(2):804-17.
25. Mirza-Aghazadeh-Attari M, Ekrami EM, Aghdas SAM, Mihanfar A, Hallaj S, Yousefi B, et al. Targeting PI3K/Akt/mTOR signaling pathway by polyphenols: Implication for cancer therapy. *Life sciences*. 2020;255:117481.
26. Latifi Z, Nejabati HR, Abroon S, Mihanfar A, Farzadi L, Hakimi P, et al. Dual role of TGF- β in early pregnancy: clues from tumor progression. *Biology of reproduction*. 2019;100(6):1417-30.
27. Mirza-Aghazadeh-Attari M, Mohammadzadeh A, Yousefi B, Mihanfar A, Karimian A, Majidinia M. 53BP1: A key player of DNA damage response with critical functions in cancer. *DNA repair*. 2019;73:110-9.
28. Refahi Rezaie S, Sadeghi Zali MH, Farahpour M, Mihanfar A. Topical application of *Dianthus* essential oil improved the infected healing process of wounds infected with *Staphylococcus aureus* in an experimental model. *Journal of Research in Applied and Basic Medical Sciences*. 2021;7(1):18-25.
29. Sadighparvar S, Darband SG, Ghaderi-Pakdel F, Majidinia M. Parasympathetic, but not sympathetic denervation, suppressed colorectal cancer progression. *European Journal of Pharmacology*. 2021;913:174626.
30. Ranjbaran A, Latifi Z, Nejabati HR, Abroon S, Mihanfar A, Sadigh AR, et al. Exosome-based intercellular communication in female reproductive microenvironments. *Journal of Cellular Physiology*. 2019;234(11):19212-22.
31. Majidinia M, Alizadeh E, Yousefi B, Akbarzadeh M, Mihanfar A, Rahmati-Yamchi M, et al. Co-inhibition of notch and nf-kb signaling pathway decreases proliferation through downregulating ikb- α and hes-1 expression in human ovarian cancer OVCAR-3 cells. *Drug research*. 2017;67(01):13-9.
32. Darband SG, Mirza-Aghazadeh-Attari M, Kaviani M, Mihanfar A, Sadighparvar S, Yousefi B, et al. Exosomes: natural nanoparticles as bio shuttles for RNAi delivery. *Journal of controlled release*. 2018;289:158-70.
33. Mirza-Aghazadeh-Attari M, Mohammadzadeh A, Adib A, Darband SG, Sadighparvar S, Mihanfar A, et al. Melatonin-mediated regulation of autophagy: making sense of double-edged sword in cancer. *Journal of cellular physiology*. 2019;234(10):17011-22.
34. Darband SG, Sadighparvar S, Yousefi B, Kaviani M, Ghaderi-Pakdel F, Mihanfar A, et al. Quercetin attenuated oxidative DNA damage through NRF2 signaling pathway in rats with DMH induced colon carcinogenesis. *Life Sciences*. 2020;253:117584.

35. Mirza-Aghazadeh-Attari M, Reiter RJ, Rikhtegar R, Jalili J, Hajalioghli P, Mihanfar A, et al. Melatonin: An atypical hormone with major functions in the regulation of angiogenesis. *IUBMB life*. 2020;72(8):1560-84.
36. Akbarian N, Zarghami N, Mota A, Abediazar S, Abroon S, Mihanfar A, et al. Correlation between circulating visfatin and nitric oxide metabolites levels in patients with diabetic nephropathy. 2018.
37. Sadighparvar S, Darband SG, Yousefi B, Kaviani M, Ghaderi-Pakdel F, Mihanfar A, et al. Combination of quercetin and exercise training attenuates depression in rats with 1, 2-dimethylhydrazine-induced colorectal cancer: Possible involvement of inflammation and BDNF signalling. *Experimental physiology*. 2020;105(9):1598-609.
38. Amanzadeh M, Mota A, Zarghami N, Abedi-Azar S, Abroon S, Akbarian N, et al. Association between matrix metalloproteinase-3 activity and glomerular filtration rate and albuminuria status in patients with type 2 diabetes mellitus. *Iranian Journal of Kidney Diseases*. 2018;12(1):40.
39. Abroon S, Zarghami N, Abedi-Azar S, Fattahi A, Gharesouran J, Amanzadeh M, et al. Association of Leptin-2548G/A polymorphism with diabetic nephropathy in Iranian Azeri Turkish patients. *International Journal of Advanced Biotechnology and Research*. 2016;7(4):2120-30.
40. Ranjbaran A, Nejabati HR, Ghasemnejad T, Latifi Z, Hamdi K, Hajipour H, et al. Follicular fluid levels of adrenomedullin 2, vascular endothelial growth factor and its soluble receptors are associated with ovarian response during ART cycles. *Geburtshilfe und Frauenheilkunde*. 2019;79(01):86-93.
41. Mirza-Aghazadeh-Attari M, Recio MJ, Darband SG, Kaviani M, Safa A, Mihanfar A, et al. DNA damage response and breast cancer development: Possible therapeutic applications of ATR, ATM, PARP, BRCA1 inhibition. *DNA repair*. 2021;98:103032.
42. Abolghasemi M, Tehrani SS, Yousefi T, Karimian A, Mahmoodpoor A, Ghamari A, et al. Critical roles of long noncoding RNAs in breast cancer. *Journal of cellular physiology*. 2020;235(6):5059-71.
43. Babaei G, Zare N, Mihanfar A, Ansari MHK. Exosomes and COVID-19: challenges and opportunities. *Comparative Clinical Pathology*. 2022;31(2):347-54.

• **BOOKS**

1. Regenerative Medicine and Dermatology, Urmia University of Medical Sciences-Urmia (2024, Persian)
2. Human Body Biofluids, Ilk Ay – Urmia University of Medical Sciences. Editor: Dr. Aynaz Mihanfar (2024, Persian)
3. Compilation the book entitled "Body fluids analysis", Avaye farda Publications, (2021, Persian)
4. Translation the book entitled "practical textbook of biochemistry for medical students" Avaye farda Publications, (2022, Persian)

PRESENTATIONS

- Serum Levels of Vaspin in Type 2 Diabetic Patients with Nephropathy: Possible Predisposing Marker
- Beneficial effects of curcumin in management of polycystic ovary syndrome

- Contradictories in vitamin D supplementation on gene expression of micro RNAs involving in breast carcinogenesis
- cellular mechanisms of memory improving properties of citrus polymethoxylated flavonoid, “NOBILETIN” in Alzheimer disease
- Association of follicular fluid levels of adrenomedullin 2, vascular endothelial growth factor and its soluble receptors with ICSI outcome

WORKSHOPS

- Teacher in a one-day compressive workshop on "How to write a narrative review?", Urmia University for Medical Sciences, 2021, Urmia, Iran
- Medical Journalism (Tabriz- 2013)
- Handling laboratory Animal workshop (Urmia- 2018)
- Endnote (Tabriz- 2019)
- Stem cell (Tabriz- 2014)
- Flow cytometry (Tabriz- 2019)
- Systematic review (Tabriz-2021)
- Review article (Tabriz-2021)

HONORS

- Distinguished as “Talented student” among Ph.D. students of biochemistry, Urmia university of medical sciences, Urmia, Iran.
- Distinguished researcher at the national level (2021)
- 1st rank “Top Researcher” in research festival of Medical Faculty of Urmia University of Medical Sciences, Urmia-Iran, 2021

LABORATORY AND RESEARCH PROFICIENCY

- Rat models (handling, injection, gavage, estrous cycle determination, morris water maze, plus maze and open field tests, PCOS induction, diabetes induction, cancer induction, analgesia, anesthesia and euthanasia)
- Cell culture, cellular proliferation and apoptosis assays, wound healing assay, DNA and RNA extraction, Real-time PCR, electrophoresis techniques, western blotting, Immunohistochemistry and H&E staining.
- ELISA (enzyme-linked immunosorbent assay) and spectrophotometry

LANGUAGE SKILL

Turkish, Persian, English