

**CURRICULUM VITAE
MAHMOUD AGHAEI**

CONTACT INFORMATION

Dept. of Clinical Biochemistry, Faculty of Pharmacy,

Isfahan University of Medical Sciences,

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PERSONAL INFORMATION

Date and city of Birth: May 21, 1978, Tehran, Iran

Nationality: Iranian

Marital status: Married (two children)

CURRENT STATUS

Associate Professor, Department of Clinical Biochemistry

School of Pharmacy, Isfahan University of Medical Sciences

EDUCATIONAL BACKGROUND

- 2006 - 2011 Ph.D. in Clinical Biochemistry, Tarbiat Modares University, School of Medicine, Tehran, Iran
Title Thesis: Evaluation of Adenosine receptors in the proliferation/apoptosis of prostate cancer cell lines
- 2002 - 2005 M.Sc. in Clinical Biochemistry, Tarbiat Modares University, School of Medicine, Tehran, Iran
Title Thesis: Assessment of adenosine deaminase activity and its isoenzymes in the serum and cancerous tissue of females with breast cancer
- 1997 - 2002 B.Sc. in Lab Medicine, Tehran University of Medical Sciences, Tehran, Iran

ACADEMIC APPOINTMENTS:

PRESENT APPOINTMENT

2017-present
Associate Professor
Department of Clinical Biochemistry
School of Pharmacy
Isfahan University of Medical Sciences

PAST APPOINTMENTS

2011-2017
Assistant Professor
Department of Clinical Biochemistry
School of Pharmacy
Isfahan University of Medical Sciences

EXECUTIVE & ADMINISTRATIVE APPOINTMENTS:

2016-2018
Head of Clinical Biochemistry department
Isfahan University of Medical Sciences
Isfahan, Iran

2014-2018
Director of higher education
School of pharmacy
Isfahan University of Medical Sciences
Isfahan, Iran

2015-2016
Director of higher education
Isfahan University of Medical Sciences
Isfahan, Iran

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Iran Bioinformatics Society
Iranian Cancer Society
Autophagy Research Center of Shiraz University of Medical Sciences

TEACHING EXPERIENCE

Clinical Biochemistry (Ph.D.)
Molecular Diagnosis (Ph.D.)
Biochemistry of Tissues (MSc)
Medicine Biochemistry I (MD)
Medical Biochemistry II (MD)
Clinical Biochemistry I and II (B.Sc)

STUDENTS PAST SUPERVISION:

10 Ph.D. students
9 MSc students
11 undergraduate students

STUDENTS CURRENTLY UNDER SUPERVISION:

5 Ph.D. Students
3 MSc Students
2 undergraduatstudentts

RESEARCH EXPERIENCES

TECHNIQUES

- Cell Culture
- PCR and RT-PCR
- Real-Time PCR and RT- PCR
- PAGE & Western Blot
- EMT Signaling Assay
- Calcium Signaling Assay
- cAMP Assay
- Flowcytometry
- Fluorescence Microscope
- Caspase Signaling

RESEARCH INTERESTS

Cancer Biology

Cancer Cell Signaling

Adenosine Receptors

DDR Receptor Signaling

EMT signaling pathways

UPR signaling

Autophagy Signaling

Cell Death & Apoptosis

Micro-RNA Gene Expression in Cancer

Lymphangiogenesis and Metastasis in cancer

Current Funding

1. Deputy of Research and Technology of Qom university of Medical Sciences (150,000,000 IRR) Title: Evaluation of PERK inhibitor and miR-204 in inhibition of proliferation and induction of apoptosis in ovarian cancer cell lines via induction of ER stress. **Role:** Principal Investigator, August 2018- August 2020.
2. Deputy of Research and Technology of Isfahanuniversity of Medical Sciences (200,000,000 IRR) Title: Evaluation of biochemical pathways of A2a Adenosine receptor ligand on Endoplasmic Reticulum stress in pancreatic beta cells line MIN6. **Role:** Principal Investigator, September 2016 – April 2019
3. Iran national science foundation (250,000,000 IRR). Title: Evaluation of functional modification of PPP1R1A in Adenosine receptors signaling pathways and their effects on CREB, Akt and in function and Regeneration of MIN6 Pancreatic beta cell line. **Role:** Principal Investigator, May 2016- May 2019
4. Deputy of Research and Technology of Ministry of Health and Medical Education (140,000,000 IRR). Title: Evaluation of molecular signaling pathway involved in cell death induced by safynol compound isolated from *Centaurea schmidii* in breast cancer cell lines MCF-7 and MDA-MB231. **Role:** Principal Investigator, December 2017- December 2019.
5. Deputy of Research and Technology of Ministry of Health and Medical Education (100,000,000 IRR). Title: Evaluation of the effects of diterpen derived from *Juniperus foetidissima* in the induction of apoptosis via caspase-3 and Bax/Bcl-2 pathways in ovarian cancer cell lines OVCAR-3 and Caov-4. **Role:** Principal Investigator, November 2016- November 2018

6. Deputy of Research and Technology of Qom university of Medical Sciences (100,000,000 IRR) Title: Evaluation of Growth Inhibition and Induction of Apoptosis in A-375 and HMCB skin cancer cells by two new diterpene compounds from *Euphorbia erythradenia* . **Role:** Principal Investigator, July 2016 – December 2017
7. Deputy of Research and Technology of Qom university of Medical Sciences (150,000,000 IRR) Title: Evaluation of cytotoxic mechanism of two plant derived sesquiterpene lactones on the growth of MCF-7 and MDA-MB-468 breast cancer cell lines. **Role:** Principal Investigator, October 2015 – May 2017

FULL ARTICLE PUBLICATIONS (Scopus Citations 1281, H-index: 21)

1. **Aghaei M**, Nasimian A, Rahmati M, Kawalec P, Machaj F, Rosik J, Bhushan B, Bathaie SZ, Azarpira N, Los MJ, Samali A, Perrin D, Gordon JW, Ghavami S. The Role of BiP and the IRE1 α -XBP1 Axis in Rhabdomyosarcoma Pathology. *Cancers (Basel)*. 2021 Sep 30;13(19):4927. (Impact Factor, 6.63).
2. Sadri H, **Aghaei M**, Akbari V. Nisin induces apoptosis in cervical cancer cells via reactive oxygen species generation and mitochondrial membrane potential changes. *Biochem Cell Biol*. 2022 Apr;100(2):136-141. (Impact Factor, 3.62).
3. Babaei Z, Panjehpour M, Parsian H, **Aghaei M***. SAR131675 Receptor Tyrosine Kinase Inhibitor Induces Apoptosis through Bcl- 2/Bax/Cyto c Mitochondrial Pathway in Human Umbilical Vein Endothelial Cells. *Anticancer Agents Med Chem*. 2022;22(5):943-950. (Impact Factor, 2.5).
4. Nikahd M, **Aghaei M**, Ali Z, Sajjadi SE, Khan IA, Ghanadian M. Phytochemical analysis of *Daphne pontica* L. stems with their pro-apoptotic properties against DU-145 and LNCaP prostate cancer cells. *Daru*. 2022 Jun;30(1):85-101. (Impact Factor, 3.1).
5. Yazdanimoghaddam F, **Aghaei M**, Ghasemi M, Soltani N, Rezazadeh H, Zadhoush F. Beneficial effects of MgSO₄ on TFAM, UPC3 and FNDC5 mRNA expressions in skeletal muscle of type 2 diabetic rats: a possible mechanism to improve insulin resistance.. *Mol Biol Rep*. 2022 Apr;49(4):2795-2803. (Impact Factor, 2.3).
6. Yegdaneh A, **Aghaei M**, Kazemi F, Ghanadian M. Mitochondrial Pro-Apoptotic Properties of *Sinularia compressa* from Persian Gulf against Breast Cancer Cells and Its Chemical Composition. *Nutr Cancer*. 2022;74(6):2276-2290. (Impact Factor, 2.9).
7. Rezghi Barez S, Movahedian Attar A, **Aghaei M***. MicroRNA-30c-2-3p regulates ER stress and induces apoptosis in ovarian cancer cells underlying ER stress. *EXCLI J*. 2021 May 25;20:922-934. (Impact Factor, 4.06).
8. Mohammadi Pour P, Yegdaneh A, **Aghaei M**, Ali Z, Khan IA, Ghanadian M. Novel 16,17-epoxy-23-methylergostane derivative from *Sinularia variabilis*, a soft coral from the Persian Gulf, with apoptotic activities against breast. cancer cell lines. *Nat Prod Res*. 2021 Feb 22:1-10. (Impact Factor, 2.8).
9. Abdolmohammadi MH, Fallahian F, Ghanadian M, Mirjani A, **Aghaei M***. New Diterpene Compound from *Euphorbia connate* Boiss., 3,7,14,15-Tetraacetyl-5-Propanoyl-13(17)-Epoxy-8,10(18)-Myrsinadiene, Inhibits the Growth of Ovarian Cancer Cells by Promoting Mitochondrial-Mediated Apoptosis. *Nutr Cancer*. 2021;73(10):2030-2038. (Impact Factor, 2.9).

10. **Aghaei M**, Mirzaei M, Ghanadian M, Fallah M, Mahboodi R. 6-Methoxylated Flavonoids: Jacein, and 3-demethyljacein from *Centaurea schmidii* with Their Endoplasmic Reticulum Stress and Apoptotic Cell Death in Breast Cancer Cells Along with *In-silico* Analysis..Iran J Pharm Res. 2021 Spring;20(2):417-432. (Impact Factor, 2.9).
11. Salemi, Z., Azizi, R., Fallahian, F., **Aghaei M***. Integrin $\alpha 2\beta 1$ inhibition attenuates prostate cancer cell proliferation by cell cycle arrest, promoting apoptosis and reducing epithelial–mesenchymal transition. Journal of Cellular Physiology, 2021, 236(7), pp. 4954–4965. (Impact Factor, 5.54).
12. Bakhtiari, H., Gheysarzadeh, A., Ghanadian, M., **Aghaei M***. 15-Hydroxy-8(17),13(E)-labdadiene-19-carboxylic acid (HLCA) inhibits proliferation and induces cell cycle arrest and apoptosis in ovarian cancer cells. Life Sciences, 2021, 267, 118981. (Impact Factor, 3.64).
13. Golestaneh, E., Aslani, A., **Aghaei, M.**, Hashemnia, M., Aarabi, M.H. Preparation and characterisation of a new form of silymarin as a potential antidiabetic agent in the adult male rat. Archives of Physiology and Biochemistry, 2021. (Impact Factor, 2.57).
14. Mohammadi Pour, P., Yegdaneh, A., **Aghaei, M.**, Khan, I.A., Ghanadian, M. Novel 16,17-epoxy-23-methylergostane derivative from *Sinularia variabilis*, a soft coral from the Persian Gulf, with apoptotic activities against breast cancer cell lines. Natural Product Research, 2021. (Impact Factor, 2.15).
15. **Aghaei M**, Dastghaib S, Aftabi S, Aghanoori MR, Alizadeh J, Mokarram P, Mehrbod P, Ashrafizadeh M, Zarrabi A, McAlinden KD, Eapen MS, Sohal SS, Sharma P, Zeki AA, Ghavami S. The ER stress/upr axis in chronic obstructive pulmonary disease and idiopathic pulmonary fibrosis. .Life, 2021, 11(1), pp. 1–27. (Impact Factor, 2.9).
16. Barez, S.R., Atar, A.M., **Aghaei M***. Mechanism of inositol-requiring enzyme 1-alpha inhibition in endoplasmic reticulum stress and apoptosis in ovarian cancer cells. Journal of Cell Communication and Signaling, 2020, 14(4), pp. 403–415. (Impact Factor, 3.78).
17. Riahi F, Dashti N, Ghanadian M, **Aghaei M***, Faez F, Jafari SM, Zargar N. Kopetdaghinanes, proapoptotic hemiacetalic cyclomyrsinanes from *Euphorbia kopetdaghi*. Fitoterapia, 2020, 146, 104636. (Impact Factor, 2.52).

18. Abbasi, M., Amanlou, M., **Aghaei, M.**, Doosti, R., Sadeghi-Aliabadi, H. New heat shock protein (Hsp90) inhibitors, designed by pharmacophore modeling and virtual screening: synthesis, biological evaluation and molecular dynamics studies. *Journal of Biomolecular Structure and Dynamics*. 2020, 38(12), pp. 3462–3473. (Impact Factor, 5.54).
19. Mashkouli, M., **Aghaei, M.**, Mofid, M.R. Purification of Soluble Membrane-Bound *Ambystoma mexicanum* Epidermal Lipoxygenase from *E. coli* and Its Growth Effect on Human Fetal Foreskin Fibroblast. *Protein Journal*, 2020, 39(4), pp. 377–382. (Impact Factor, 1.3).
20. Ghanadian M, Ali Z, Khan IA, Balachandran P, Nikahd M, **Aghaei M**, Mirzaei M, Sajjadi SE. A new sesquiterpenoid from the shoots of Iranian *Daphne mucronata* Royle with selective inhibition of STAT3 and Smad3/4 cancer-related signaling pathways. *DARU, Journal of Pharmaceutical Sciences*. 2020, 28(1), pp. 253–262. (Impact Factor, 2.73).
21. Shojaei S, Koleini N, Samiei E, **Aghaei M**, Cole LK, Alizadeh J, Islam MI, Vosoughi AR, Albokashy M, Butterfield Y, Marzban H, Xu F, Thliveris J, Kardami E, Hatch GM, Eftekharpour E, Akbari M, Hombach-Klonisch S, Klonisch T, Ghavami S. Simvastatin increases temozolomide-induced cell death by targeting the fusion of autophagosomes and lysosomes. *FEBS Journal*, 2020, 287(5), pp. 1005–1034. (Impact Factor, 4.39).
22. Sajjadi, S.-E., Ghanadian, M., **Aghaei, M.**, Salehi, A. Two new dammarane triterpenes isolated from *Cleome khorassanica* Bunge & Bien with cytotoxicity against DU-145 and LNCaP prostate cancer cell lines. *Journal of Asian Natural Products Research*, 2020, 22(1), pp. 38–46. (Impact Factor, 1.34).
23. Azizi, R., Fallahian, F., **Aghaei M***, Salemi, Z. Down-regulation of DDR1 induces apoptosis and inhibits EMT through phosphorylation of PYK2/MKK7 in DU-145 and Lncap-FGC prostate cancer cell lines. *Anti-Cancer Agents in Medicinal Chemistry*, 2020, 20(8), pp. 1009–1016. (Impact Factor, 2.04).
24. Abdolmohammadi, M.H., Fallahian, F., Ghanadian, M., Mirjani, A., **Aghaei M***. New Diterpene Compound from *Euphorbia connata* Boiss., 3,7,14,15-Tetraacetyl-5-Propanoyl-13(17)-Epoxy-8,10(18)-Myrsinadiene, Inhibits the Growth of Ovarian Cancer Cells by Promoting Mitochondrial-Mediated Apoptosis. *Nutrition and Cancer*, 2020. (Impact Factor, 2.36).
25. Emami A, Shojaei S, da Silva Rosa SC, **Aghaei M**, Samiei E, Vosoughi AR, Kalantari F, Kawalec P, Thliveris J, Sharma P, Zeki AA, Akbari M, Gordon JW, Ghavami S. Mechanisms of simvastatin myotoxicity: The role of autophagy flux inhibition. *European Journal of Pharmacology*. 2019, 862, 172616. (Impact Factor, 3.26).
26. Azizi, R., Salemi, Z., Fallahian, F., **Aghaei M***. Inhibition of discoidin domain receptor 1 reduces epithelial–mesenchymal transition and induce cell-cycle arrest and apoptosis in prostate cancer cell lines. *Journal of Cellular Physiology*, 2019, 234(11), pp. 19539–19552. (Impact Factor, 5.54).
27. Keyvanloo Shahrestanaki, M., Bagheri, M., Ghanadian, M., **Aghaei M***, Jafari, S.M. *Centaurea cyanus* extracted 13-O-acetylsolstitialin A decrease Bax/Bcl-2 ratio and expression of cyclin D1/Cdk-4 to

induce apoptosis and cell cycle arrest in MCF-7 and MDA-MB-231 breast cancer cell lines. *Journal of Cellular Biochemistry*, 2019, 120(10), pp. 18309–18319. (Impact Factor, 4.23).

28. Hamzeloo-Moghadam, M., **Aghaei, M.**, Abdolmoham Madi, M., Fallahian, F. Anticancer activity of britannin through the downregulation of cyclin D1 and CDK4 in human breast cancer cells. *Journal of Cancer Research and Therapeutics*, 2019, 15(5), pp. 1105–1108. (Impact Factor, 1.32).
29. Abbaspour, J., Ehsanpour, A.A., **Aghaei, M.**, Ghanadian, M. Sesquiterpene lactones from shoot culture of *Artemisia aucheri* with cytotoxicity against prostate and breast cancer cells. *Research in Pharmaceutical Sciences*, 2019, 14(4), pp. 329–334.
30. Shahrestanaki, M.K., Arasi, F.P., **Aghaei M***. IPP-1 controls Akt/CREB phosphorylation extension in A_{2a} adenosine receptor signaling cascade in MIN6 pancreatic β -cell line. *European Journal of Pharmacology*. 2019, 850, pp. 88–96. (Impact Factor, 3.26).
31. Ataei, N., **Aghaei, M.**, Panjehpour, M. Evidences for involvement of estrogen receptor induced ERK1/2 activation in ovarian cancer cell proliferation by Cadmium Chloride. *Toxicology in Vitro*, 2019, 56, pp. 184–193. (Impact Factor, 2.95).
32. Shahrestanaki, M.K., **Aghaei M***. A3 receptor agonist, Cl-IBMECA, potentiate glucose-induced insulin secretion from MIN6 insulinoma cells possibly through transient Ca²⁺ entry. *Research in Pharmaceutical Sciences*, 2019, 14(2), pp. 107–114.
33. Varshosaz, J., Sarrami, N., **Aghaei, M.**, Aliomrani, M., Azizi, R. LHRH targeted chondrosomes of mitomycin C in breast cancer: An In Vitro/ In Vivo study. *Anti-Cancer Agents in Medicinal Chemistry*, 2019, 19(11), pp. 1405–1417. (Impact Factor, 2.04).
34. Shahrestanaki MK, Arasi FP, **Aghaei M***. Adenosine protects pancreatic beta cells against apoptosis induced by endoplasmic reticulum stress. *J Cell Biochem*. 2018 Nov 11. (Impact Factor, 3.08).
35. Arasi FP, Shahrestanaki MK, **Aghaei M***. A2a adenosine receptor agonist improves endoplasmic reticulum stress in MIN6 cell line through protein kinase A/ protein kinase B/ Cyclic adenosine monophosphate response element-binding protein/ and Growth Arrest And DNA-Damage-Inducible 34/ eukaryotic Initiation Factor 2 α pathways. *J Cell Physiol*. 2018 Nov 11. doi: 10.1002/jcp.27719. (Impact Factor, 3.92).
36. Hamzeloo-Moghadam M, **Aghaei M**, Abdolmohammadi MH, Khalaj A, Fallahian F. Cytotoxic effect of *Drimys maritima* bulb extract and induction of mitochondrial apoptotic signaling in human breast cancer cells, MCF-7 and MDA-MB-468. *Onco Targets Ther*. 2018 Oct 31; 11:7669-7677. (Impact Factor, 2.65).
37. **Aghaei M**, Ghanadian M, Sajjadi SE, Saghafian R, Keyvanloo Shahrestanaki M. Pimpinellol, a novel atypical Sesquiterpene lactone from *Pimpinella haussknechtii* fruits with evaluation of endoplasmic reticulum stress in breast cancer cells. *Fitoterapia*. 2018 Sep; 129:198-202. (Impact Factor, 2.64).

38. Jafari SM, Joshaghani HR, Panjehpour M, **Aghaei M***. A2B adenosine receptor agonist induces cell cycle arrest and apoptosis in breast cancer stem cells via ERK1/2 phosphorylation. *Cell Oncol*. 2018 Feb;41(1):61-72. (Impact Factor, 4.76).
39. Ghasemi A, Hashemy SI, **Aghaei M**, Panjehpour M. Leptin induces matrix metalloproteinase 7 expression to promote ovarian cancer cell invasion by activating ERK and JNK pathways. *J Cell Biochem*. 2018 Feb; 119(2):2333-2344. (Impact Factor, 3.08).
40. Naderi S, Zare H, Taghavinia N, Irajizad A, **Aghaei M**, Panjehpour M. Cadmium telluride quantum dots induce apoptosis in human breast cancer cell lines. *Toxicol Ind Health*. 2018 May;34(5):339-352. (Impact Factor, 1.37).
41. Bahmani B, Keyvanloo Shahrestanaki M, Ghanadian M, Hajiahmadi S, **Aghaei M***. Jatropha-6(17),11E-diene class derivatives induce apoptosis effects in OVCAR-3 and Caov-4 ovarian cancer cell lines via a mitochondrial pathway. *Biochem Cell Biol*. 2017 Dec; 95(6):616-627. (Impact Factor, 2.25).
42. **9.**Jafari SM, Joshaghani HR, Panjehpour M, **Aghaei M***, Zargar Balajam N. Apoptosis and cell cycle regulatory effects of adenosine by modulation of GLI-1 and ERK1/2 pathways in CD44+ and CD24- breast cancer stem cells. *Cell Prolif*. 2017 Aug; 50(4). (Impact Factor, 4.93).
43. **10.**Jafari SM, Panjehpour M, **Aghaei M***, Joshaghani HR, Enderami SE. A3 Adenosine Receptor Agonist Inhibited Survival of Breast Cancer Stem Cells via GLI-1 and ERK1/2 Pathway. *J Cell Biochem*. 2017 Sep; 118(9):2909-2920. (Impact Factor, 3.08).
44. **11.**Ghasemi A, Hashemy SI, **Aghaei M**, Panjehpour M. RhoA/ROCK pathway mediates leptin-induced uPA expression to promote cell invasion in ovarian cancer cells. *Cell Signal*. 2017 Apr; 32:104-114. (Impact Factor, 3.5).
45. Ataei N, **Aghaei M**, Panjehpour M. The protective role of melatonin in cadmium-induced proliferation of ovarian cancer cells. *Res Pharm Sci*. 2018 Apr; 13(2):159-167.
46. Mohamadi A, **Aghaei M**, Panjehpour M. Estrogen stimulates adenosine receptor expression subtypes in human breast cancer MCF-7 cell line. *Res Pharm Sci*. 2018 Feb;13(1):57-64.
47. Shahali A, Ghanadian M, Jafari SM, **Aghaei M***. Mitochondrial and caspase pathways are involved in the induction of apoptosis by nardosinen in MCF-7 breast cancer cell line. *Res Pharm Sci*. 2018 Feb;13(1):12-21.
48. **15.**Poupel F, **Aghaei M***, Movahedian A, Jafari SM, Shahrestanaki MK. Dihydroartemisinin Induces Apoptosis in Human Bladder Cancer Cell Lines Through Reactive Oxygen Species, Mitochondrial Membrane Potential, and Cytochrome C Pathway. *Int J Prev Med*. 2017 Oct 5;8:78.
49. Nabatchian F, Moradi A, **Aghaei M***, Ghanadian M, Jafari SM, Tabesh S. New 6(17)-epoxylathyrane diterpene: aellinane from *Euphorbia aellenii* induces apoptosis via mitochondrial pathway in ovarian cancer cell line. *Toxicol Mech Methods*. 2017 Oct;27(8):622-630. (Impact Factor, 1.99).

50. Joshaghani HR, Jafari SM, **Aghaei M***, Panjehpour M, Abedi H. A3 adenosine receptor agonist induce G1 cell cycle arrest via Cyclin D and cyclin-dependent kinase 4 pathways in OVCAR-3 and Caov-4 cell lines. *J Cancer Res Ther.* 2017 Jan-Mar;13(1):107-112. (Impact Factor, 0.84).
51. Keshtkar M, Shahbazi-Gahrouei D, Khoshfetrat SM, Mehrgardi MA, **Aghaei M**. Aptamer-conjugated Magnetic Nanoparticles as Targeted Magnetic Resonance Imaging Contrast Agent for Breast Cancer. *J Med Signals Sens.* 2016 Oct-Dec;6(4):243-247.
52. Fallahian F, Ghanadian M, **Aghaei M***, Zarei SM. Induction of G2/M phase arrest and apoptosis by a new tetrahydroingenol diterpenoid from *Euphorbia erythradenia* Bioss. in melanoma cancer cells. *Biomed Pharmacother.* 2017 Feb;86:334-342. (Impact Factor, 3.45).
53. Shariati M, **Aghaei M**, Movahedian A, Somi MH, Dolatkah H, Aghazade AM. The effect of ω -fatty acids on the expression of phospholipase A₂ group 2A in human gastric cancer patients. *J Res Med Sci.* 2016 Feb 23; 21:10. (Impact Factor, 1.39).
54. Darabi F, **Aghaei M***, Movahedian A, Elahifar A, Pourmoghadas A, Sarrafzadegan N. Association of serum microRNA-21 levels with Visfatin, inflammation, and acute coronary syndromes. *Heart Vessels.* 2017 May; 32(5):549-557. (Impact Factor, 3.4).
55. Darabi F, **Aghaei M**, Movahedian A, Pourmoghadas A, Sarrafzadegan N. The role of serum levels of microRNA-21 and matrix metalloproteinase-9 in patients with acute coronary syndrome. *Mol Cell Biochem.* 2016 Nov; 422(1-2):51-60. (Impact Factor, 4.39).
56. **Aghaei M**, Yazdiniapour Z, Ghanadian M, Zolfaghari B, Lanzotti V, Mirsafae V. Obtusifoliol related steroids from *Euphorbia sogdiana* with cell growth inhibitory activity and apoptotic effects on breast cancer cells (MCF-7 and MDA-MB231). *Steroids.* 2016 Nov; 115:90-97. (Impact Factor, 2.28).
57. **24.** Dolatkah H, Movahedian A, Somi MH, **Aghaei M**, Samadi N, Mirza-Aghazade A, Esfahani A. Effect of PUFAs Oral Administration on the Amount of Apoptotic Caspases Enzymes in Gastric Cancer Patients Undergoing Chemotherapy. *Anticancer Agents Med Chem.* 2017;17(1):93-101. (Impact Factor, 2.5).
58. Fallahian F, **Aghaei M**, Abdolmohammadi MH, Hamzeloo-Moghadam M. Molecular mechanism of apoptosis induction by Gaillardin, a sesquiterpene lactone, in breast cancer cell lines: Gaillardin-induced apoptosis in breast cancer cell lines. *Cell Biol Toxicol.* 2015 Dec; 31(6):295-305. (Impact Factor, 2.33).
59. Rafieian-Kopaei M, Suleimani Dehkordi I, Ghanadian M, Shokrollahi A, **Aghaei M**, Syed Majid A, Choudhary MI. Bioactivity-guided isolation of new antiproliferative compounds from *Juniperus foetidissima* Willd. *Nat Prod Res.* 2016 Sep; 30(17):1927-33. (Impact Factor, 1.82).

60. Khojastehfar A, **Aghaei M**, Gharagozloo M, Panjehpour M. Cadmium induces reactive oxygen species-dependent apoptosis in MCF-7 human breast cancer cell line. *Toxicol Mech Methods*. 2015; 25(1):48-55. (Impact Factor, 1.59).
61. Ghanadian M, Saeidi H, **Aghaei M**, Rahiminejad E. New jatrophane diterpenes from *Euphorbia osyridea* with proapoptotic effects on ovarian cancer cells. *Phytochemistry Letters*. 2015; 12: 302-307. (Impact Factor, 1.41).
62. Hamzeloo-Moghadam M, **Aghaei M**, Fallahian F, Jafari SM, Dolati M, Abdolmohammadi MH, Hajiahmadi S, Esmaeili S. Britannin, a sesquiterpene lactone, inhibits proliferation and induces apoptosis through the mitochondrial signaling pathway in human breast cancer cells. *Tumour Biol*. 2015 Feb;36(2):1191-8. (Impact Factor, 3.6).
63. Azemikhah M, Ahmadi Ashtiani H, **Aghaei M***, Rastegar H. Evaluation of discoidin domain receptor-2 (DDR2) expression level in normal, benign, and malignanthuman prostate tissues. *Research in Pharmaceutical Sciences*. 2015; 10(4): 356-363. (Impact Factor, 3.08).
64. Hajiahmadi S, Panjehpour M, **Aghaei M***, Shabani M. Activation of A2b adenosine receptor regulates ovarian cancer cell growth: involvement of Bax/Bcl-2 and caspase-3. *Biochem Cell Biol*. 2015 Aug;93(4):321-9. (Impact Factor, 1.9).
65. Mousavi S, Panjehpour M, Izadpanahi MH, **Aghaei M**. Expression of adenosine receptor subclasses in malignant and adjacent normal human prostate tissues. *Prostate*. 2015; 75(7):735-47. (Impact Factor, 3.8).
66. **Aghaei M**, Ghanadian M, Faez F, Esfandiary E. Cytotoxic activities of *Euphorbia kopetdaghi* against OVCAR-3 and EJ-138 cell lines. *J herbmed Pharm*. 2015; 4(2): 49-52. (Impact Factor, 3.08).
67. Hajiahmadi S, Panjehpour M, **Aghaei M***, Mousavi M. Molecular expression of adenosine receptors in human ovarian cancer cell lines OVCAR-3, Caov-4 and SKOV-3. *Research in Pharmaceutical Sciences*. 2015;10(1): 29-37. (Impact Factor, 3.08).
68. Abedi H, **Aghaei M***, Panjehpour M, Hajiahmadi S. Mitochondrial and caspase pathways are involved in the induction of apoptosis by IB-MECA in ovarian cancer cell lines. *Tumour Biol*.2014; 35:11027–11039. (Impact Factor, 3.6).
69. Shadi S, Saeidi H, Ghanadian M, Rahimnejad MR, **Aghaei M**, Ayatollahi M, Choudharyi. New macrocyclic diterpenes from *Euphorbia connate* Boiss. With cytotoxic activities on Human breast cancer cell lines. *Nat Prod Res*. 2015; 29(7):607-14. . (Impact Factor, 1.82).
70. Baniadam S, Rahiminejad MR, Ghannadian M, Saeidi H, Ayatollahi AM, **Aghaei M**. Cycloartane Triterpenoids from *Euphorbia Macrosteigia* with their Cytotoxicity against MDA-MB48 and MCF-7 Cancer Cell Lines. *Iran J Pharm Res*. 2014 winter; 13(1):135-41. (Impact Factor, 1.35).

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Current Post Graduate Thesis Supervision:

1. Evaluation effects of VEGFR-3 inhibitor and miR-1236 in reducing the ovarian cancer cell proliferation through ERK1/2 and AKT signaling pathway. (Ms. Zeinab Babaei, Ph.D. Student.)
2. Evaluation of IRE1- α inhibitor and miR-30c-2-3p in induction of apoptosis in ovarian cancer cell lines via XBP1-Chop-Bim pathway. (Ms. Shekoufeh Rezaghi, Ph.D. Student.)

3. Evaluation of Didscoidin Domain Receptor1 (DDR1) inhibition on epithelial-mesenchymal transition (EMT) mediated with Pyk2 and MKK7 signaling pathways at prostate cancer cell lines DU-145 and LNCap. (Mr. Reza Azizi, Ph.D. Student.)
4. Evaluation of biochemical pathways of A2a Adenosine receptor ligand on Endoplasmic Reticulum stress in pancreatic beta cells line MIN6. ((Ms. Fatemeh Panahi Arasi, MSc. Student.)
5. Evaluation of Adenosine receptors roles on signaling pathways of PPP1R1A, CREB and Akt in function and Regeneration of Pancreatic beta cells. (Mr. Mohamad Keyvanlo Shahrestanaki, Ph.D. Student.)
6. Evaluate the ability of dopamine synthesis by stem cells isolated from adipose tissue and differentiated in to dopaminergic neurons. (Ms. Marjan Khademizadeh, Ph.D. Student.)

Previous Post Graduate Thesis Supervision:

1. Evaluation of leptin effects on cell invasion mediated with Rho/Rock and JNK signaling pathways at ovarian cancer cells. (Mr. Ahmad Ghasemi, Ph.D. Student.)
2. Evaluation of Cyclin D1 / Cdk4, ERK1 / 2 and Hedgehog-Gli1 signaling pathway in growth and cell death induced by adenosine and adenosine receptors in breast cancer stem cells. (Mr. Mehdi Jafari, Ph.D. Student.)
3. Evaluation of the association between serum microRNA-21, matrix metalloproteinase-9 ,visfatin and resistin in unstable coronary artery disease (ACS). (Mr. Faramarz Darabi, Ph.D. Student.)
4. Evaluation of estrogenic effects of cadmium and its associated signaling pathway in ovarian cancerous cell. (Mrs. Negar Ataei, Ph.D. Student.)
5. The effects of Cadmium telluride quantum dot on the growth and proliferation of estrogen receptor positive (MCF-7) and estrogen receptor negative (MDA-MB 468) breast cancer cell lines. (Mrs. Azam Mohamadi, MSc. Student.)
6. Purification of epidermal lipoxygenase from *Ambystoma mexicanum* and investigation of enzyme's effects on fibroblasts cell culture. (Ms. Zahra Mashkoli MSc student).
7. Evaluation of TIM3 (T-cell immunoglobulin mucin-3) gene expression in the peripheral blood and bone marrow samples from patients with acute lymphoblastic leukemia. (Ms. Narges Zargar Balajam, MSc. Student.)
8. The effect of Omega Polyunsaturated Fatty Acids (*omega* PUFAs) on apoptosis in patients with Gastric Carcinoma. (Mr. Hodayun Dolatkah, Ph.D. Student.)
9. The effect of Omega-3,-6 and -9 fatty acids on protein and gene expression of phospholipase A₂ group II-A in patients with Gastric Cancer. Ms. Mahboube Shariati, MSc. Student).
10. Evaluation of cycloart-23(Z)-ene-3,25-diol extract from *Euphorbia macrostegia* in the induction of apoptosis via Bcl-2/Bax dependent biochemical pathways in breast cancer cell line MCF-7. (Mr Abdollah Mirjani, Pharm D student).

- 11.** Evaluation of Jatrophan Derivatives extract from *Euphorbia osyridea*.Boiss in the induction of apoptosis via caspase-3 and 9 dependent biochemical pathways in ovary cancer cell line OVCAR-3. (Mr. Behzad Bahmani, Pharm D student).
- 12.** Evaluation of Discoidin Domain Receptor-1 (DDR1) expression level in normal and malignant human prostate tissues using Real-Time PCR and Western Blotting. (Ms. Mitra Azemikhah, MSc. Student).
- 13.** Investigation of ROS interference in cytotoxic effects of cadmium chloride and apoptosis in MCF-7 cell line of breast cancer. (Mr. Ali Khojastehfar, MSc student).
- 14.** Evaluation of dihydroartemisinin in the induction of apoptosis via Reactive Oxygen Species (ROS) dependent in bladder cancer cell line EJ138.(Mr. Farhad Poupel, Pharm D student).
- 15.** Evaluation of A2B adenosine receptor agonist in the induction of apoptosis via mitochondrial-dependent biochemical pathway in ovary cancer cell line OVCAR-3. (Ms. Sima Hajiahmadi,MSc student).