

CURRICULUM VITAE

Fatemeh Safari

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Education

- Ph.D. in Molecular & Cellular Biology, 2011, Hokkaido University, Sapporo, Japan.
- M.Sc. in Microbiology, 2005, University of Tehran, Tehran, IRAN.
- B.Sc. in Biology, 1999, University of Shahid Beheshti, Tehran, IRAN.

Experience

- ✓ Associated professor at University of Guilan, Guilan, Iran, September 2022- present.
- ✓ Assistant professor at University of Guilan, Guilan, Iran, September 2016- 2022.
- ✓ Post doc fellow at NAIST, Japan, 2014-2015.
- ✓ Post doc fellow at The University of Tokyo, Japan, 2012-2014.
- ✓ Research assistant, University of Tehran, Iran, 2005-2007.

Fellowship Awarded

- ✓ Monbokagakosho Scholarship (Japanes Ministry of Education and Culture) during Ph.D program, 2007-2011.
- ✓ The Japan Society for the Promotion of Science (JSPS) Fellowship for Post doc (2013-2015).

Publication

1. Rasouli M, Alavi M, D'Angelo A, Sobhani N, Roudi R*, **Safari F***. Exploring the dichotomy of the mesenchymal stem cell secretome: Implications for tumor modulation via cell-signaling pathways. *International Immunopharmacology* 143 (2024) 113265.
2. Alavi M, **Safari F***. Molecular aspects of the effects of green tea extracts in c ancer studies. *Tea in Health and Disease Prevention* (book). <https://doi.org/10.1016/B978-0-443-14158-4.00040-3>.2024.
3. Aghahosseini F, Bayat M*, Sadeghian Z, Gheidari D, **Safari F** (2024) Synthesis, molecular docking study, MD simulation, ADMET, and drug likeness of new thiazolo[3,2-

- a)pyridine-6,8-dicarbonitrile derivatives as potential anti-diabetic agents. PLoS ONE 19(9): e0306973. <https://doi.org/10.1371/journal.pone.0306973>.
4. Khodabandeh, A., **Safari, F***, Ebadi Zavieh, S. *et al.* IRTKS Elevation in Patients with Colon Cancer and the Curative Influences of Hamsc Secretome on Polarity and Invasion of HT-29 Colon Cancer Cells. *Regen. Eng. Transl. Med.* (2024).
 5. Sadeghian Z, Bayat* M, Eskandari M, **Safari F**. TCAA-promoted novel approach synthesis and *in vitro* anti-cancer activity evaluation of spiro[indolo[2,1-*b*]quinazoline-6,4'-pyrano[2,3-*c*]pyrazole]-5'-carboxamides. *Results in Chemistry* 101636. 2024.
 6. **Safari, F***, Bararpour, S. & Omid Chomachaei, F. The suppression of cell motility through the reduction of FAK activity and expression of cell adhesion proteins by hAMSCs secretome in MDA-MB-231 breast cancer cells. *Invest New Drugs* 42, 272–280 (2024).
 7. Rasouli, M., **Safari, F***. (2024). Principles of Indirect Co-culture Method Using Transwell. In: *Methods in Molecular Biology*. Springer, New York, NY. https://doi.org/10.1007/7651_2024_537
 8. Rasouli, M., **Safari, F***, Kanani, M.H., Ahvati, H. (2024). Principles of Hanging Drop Method (Spheroid Formation) in Cell Culture. In: *Methods in Molecular Biology*. Springer, New York, NY. https://doi.org/10.1007/7651_2024_527.
 9. Soghrati Salek Moalemi S F, **Safari F***. Comparison of the simultaneous treatment effects of sorafenib and sunitinib on viability and migration of breast (MDA-MB-231) and pancreatic (Panc1) cancer cell lines. *Feyz Med Sci J* 2024; 28 (3) :317-323.
 10. Rasouli M, **Safari F***, Sobhani N, Alavi M, Roudi R*. Regulation of Cellular-Signaling Pathways by Mammalian Proteins Containing Bacterial EPIYA or EPIYA-Like Motifs Predicted to be Phosphorylated. *DNA Cell Biol.* 2023. doi: 10.1089/dna.2023.0350.
 11. Barghi Lish A, Foroumadi A*, Kolvari E*, **Safari F**. Synthesis and Biological Evaluation of 12-Aryl-11-hydroxy-5,6-dihydropyrrolo[2'',1'':3',4']pyrazino[1',2':1,5]pyrrolo[2,3-*d*]pyridazine-8(9*H*)-one Derivatives as Potential Cytotoxic Agents. *ACS Omega.* 2023 ;8(45):42212-42224. doi: 10.1021/acsomega.3c04167.
 12. **Safari F***, Fatemeh Ansari Dogaheh, Haniyeh Dadashi. Evaluation of SgK269 expression in colon cancer patients and the effects of hAMSCs secretome on tumor invasion through SgK269/c-Src/p-P130Cas/p-Paxillin/p-ERK1/2 signaling pathway in HT-29 colon cancer cells. 2023. 3Biotech. <https://doi.org/10.1007/s13205-023-03763-0>.

13. **Safari F***, Dadvar F. *In vitro* evaluation of autophagy and cell death induction in Panc1 pancreatic cancer by secretome of hAMSCs through downregulation of p-AKT/p-mTOR and upregulation of p-AMPK/ULK1 signal transduction pathways. 2023. Tissue and cell. In press.
14. Alizadeh-Bamia F, Mehrabia,H*, **Safari F***. Design, synthesis, and anticancer evaluation of novel imidazo[1,2-c]thieno [3,2-e]pyrimidin derivatives. 2023. Tetrahedron 144 (2023) 133594.
15. Firoozpour L, Moghimi S, Fallah Barzegar MH, Toolabi M, Salarinejad S, Bijanzadeh HR, Sadat Ebrahimi SE, **Safari F***, Foroumadi A*. Synthesis, Molecular Docking, and Biological Evaluation of Pyridin-3-yl-Pyrimidin-2-yl-Triazole Derivatives as Anti-cancer Agents. 2023. POLYCYCLIC AROMATIC COMPOUNDS. <https://doi.org/10.1080/10406638.2023.2212101>.
16. Matloubi Moghadam F*, Hosseinzadeh N, **Safari F**, Foroumadi A. Ultrasound-promoted 1,3-dipolar cycloaddition of azomethine yields for synthesis of dispiropyrrolidineoxindole derivatives in hexyltriphenylphosphonium bromide as an ionic liquid and the evaluation of their anti-cancer activity. 2022. J Heterocyclic Chem. 1–7.
17. Babaei Hemmaty T, Ranji N*, **Safari F**. Evaluation of expression level of circulating miR-34a and miR-375 in the plasma of gastric cancer patients in Guilan province. 2022. مجله فیزیولوژی و تکوین جانوری.
18. شیرین سخن، ارمغان، خزائی کوهر، زینب، رنجی، نجمه، و صفری، فاطمه. (۱۴۰۱). بررسی اثر آن استیل سیستئین بر غلظت روی و مس در خون و بافت ریه رت های نر ویستار تیمار شده با کادمیوم. نشریه دانشگاه علوم پزشکی البرز، ۱۱(۴)، ۵۰۳-۵۱۲. SID. <https://sid.ir/paper/1019629/fa>.
19. Sadeghian, Z, Bayat, M*, **Safari, F***. Synthesis and antitumor activity screening of spiro tryptanthrin-based heterocyclic compounds. *Med Chem Res* 31, 497–506 (2022).
20. Rahimi Lifshagerd M, **Safari F***. Therapeutic effects of hAMSCs secretome on proliferation of MDA-MB-231 breast cancer cells by the cell cycle arrest in G1/S phase. *Clin Transl Oncol*. 2023. doi: 10.1007/s12094-022-03067-4.
21. Ebadi Zavieh S, **Safari F***. The Antitumor Activity of hAMSCs Secretome in HT-29 Colon Cancer Cells Through Downregulation of EGFR/c-Src/IRTKS Expression and p38/ERK1/2 Phosphorylation. *Cell Biochem Biophys*. 2022; 80(2):395-402.
22. Toolabi M, **Safari F**, Ayati A, Fathi P, Moghimi S, Salarinejad S, Foroumadi R, Ketabforoosh SHME, Foroumadi A*. Synthesis of novel 2-acetamide-5-phenylthio-1,3,4-

- thiadiazole-containing phenyl urea derivatives as potential VEGFR-2 inhibitors. Arch Pharm (Weinheim). 2022; 355(3): e2100397.
23. **Safari F***, Shafiee Nejad N, Aghaei Nejad A. The inhibition of Panc1 cancer cells invasion by hAMSCs secretome through suppression of tyrosine phosphorylation of SGK223 (at Y411 site), c-Src (at Y416, Y530 sites), AKT activity, and JAK1/Stat3 signaling. Med Oncol. 2022; 39(3):28.
 24. Alidoust Saharkhiz Lahiji M, **Safari F***. Potential therapeutic effects of hAMSCs secretome on Panc1 pancreatic cancer cells through downregulation of SgK269, E-cadherin, vimentin, and snail expression. Biologicals. 2022; 76:24-30.
 25. **Safari F***, Dadeh Amirfard K. Efficacy of green tea extract on PC3 prostate cancer cells through upregulation of miR-195 expression and suppression of epithelial to mesenchymal transition. J Tradit Chin Med. 2022 Oct;42(5):681-686.
 26. **Safari F***, Rayat Azad N, Alizadeh Ezdiny A, Pakizehkar S, Khazaei Koohpar Z, Ranji N. Antitumor Activities of Green Tea by Up-regulation of miR-181a Expression in LNCaP Cells Using 3D Cell Culture Model. Avicenna J Med Biotechnol. 2022 Jan-Mar;14(1):89-94.
 27. Sadeghian Z, Bayat M*, **Safari F***. Synthesis and in vitro evaluation of antitumor activity of spiro[indolo[2,1-b]quinazoline-pyrano[2,3-d]pyrimidine] and spiro[indolo[2,1-b]quinazoline-pyrido[2,3-d]pyrimidine] derivatives by using 2D and 3D cell culture models. Mol Divers. 2022 Dec;26(6):3173-3184.
 28. Shokouhfard M, Kermanshahi RK, Feizabadi MM, Teimourian S, **Safari F**. Lactobacillus spp. derived biosurfactants effect on expression of genes involved in Proteus mirabilis biofilm formation. Infect Genet Evol. 2022.
 29. Hamzehloueian M, Sarrafi Y, Darroudi M, Azimzadeh Arani M, Nezamdoost Darestani R, **Safari F***, Foroumadi A*. Synthesis, antibacterial and anticancer activities evaluation of new 4-thiazolidone-indole-2-one analogs. 2021; 12(6): 8094-8104.
 30. Shakery T, **Safari F***. Down regulation of Pinkbar/pAKT and MMP2/MMP9 expression in MDA-MB-231 breast cancer cells as potential targets in cancer therapy by hAMSCs secretome. Cells Tissues Organs. 2021, 25. doi: 10.1159/000520370.

31. Sadeghiyan Z, Bayat M*, **Safari F***. Synthesis and *in vitro* anticancer activity evaluation of spiro[indolo[2,1- b]quinazoline-pyrano[2,3- c]pyrazole] via sequential four-component reaction. *Journal of molecular structure*, 2022, 1250; 131759.
32. **Safari F***, Shakery T, Sayadamin N. Evaluating the effect of secretome of human amniotic mesenchymal stromal cells on apoptosis induction and epithelial-mesenchymal transition inhibition in LNCaP prostate cancer cells based on 2D and 3D cell culture models. *Cell Biochem Funct.* 2021, 39(6):813-820. doi: 10.1002/cbf.3654.
33. Nemati H, Karimi Yousefi S.S, Pourvatan N, Aparviz R, Farzaneh P, KhazaeiKoohpar Z*, **Safari F**, SafaeeAsl A, Ranji N. Mutation analysis of Phenylketonuria in the North of Iran. *Gene reports*, 2021; 101196.
34. Babaei Hemmaty T, Ranji N*, **Safari F**. Evaluation of the Expression of Circulating miR-16 and miR-26a in the plasma of Gastric Cancer Patients in Guilan province, North of Iran. *Iranian Red Crescent Medical Journal.* 2021.23(3): e214.
35. Eghtedari M, Azimzadeh Arani M, Sarrafi Y, Shafiei M, Alimohammadi K, **Safari F*** & Foroumadi A*. Synthesis and Antitumor Activity Evaluation of Novel Pyrimidoquinoline Derivatives, Polycyclic Aromatic Compounds, 2021. DOI: 10.1080/10406638.2021.1892778.
36. Moghimi S, Salarinejad S, Toolabi M, Firoozpour L, Esmaeil Sadat Ebrahimi S, **Safari F**, Madani-Qamsari F, Mojtavavi S, Faramarzi MA, Karima S, Pakrad R, Foroumadi A*. Synthesis, *in-vitro* evaluation, molecular docking, and kinetic studies of pyridazine-triazole hybrid system as novel α -glucosidase inhibitors. *Bioorg Chem.* 2021, 109:104670. doi: 10.1016/j.bioorg.2021.104670.
37. **Safari F***, Shokohfard M. The roles of EPIYA sequence to perturb the cellular signaling pathways and cancer risk. *RJMS.* 2020; 27 (6) :90-102.
38. Rahmani Z, **Safari F***. Evaluating the in vitro therapeutic effects of human amniotic mesenchymal stromal cells on MiaPaca2 pancreatic cancer cells using 2D and 3D cell culture model. *Tissue Cell.* 2020. 23;68:101479. doi: 10.1016/j.tice.2020.101479.
39. Shirinsokhan, A., Khazaei Koohpar, Z., Ranji, N., & **Safari, F**. Effects of N-Acetyl Cysteine on the Expression of Matrix Metalloproteinases 2 and 9 in the Lung Tissue of Rats Exposed to Cadmium. *Iranian Red Crescent Medical Journal.* 2020. 22(11). <https://doi.org/10.32592/ircmj.2020.22.11.163>

40. Nazari S, **Safari F***, Mamaghani MB, Bazgir A*. Synthesis and evaluation of in vitro cytotoxic effects of triazol/spiroindolinequinazolinedione, triazol/indolin-3-thiosemicarbazone and triazol/thiazol-indolin-2-one conjugates. *Daru*. 2020;28(2):591-601. doi: 10.1007/s40199-020-00364-7.
41. Moghimi S, Toolabi M, Salarinejad S, Firoozpour L, Ebrahimi SES, **Safari F**, Mojtavavi S, Faramarzi MA, Foroumadi A. Design and synthesis of novel pyridazine N-aryl acetamides: In-vitro evaluation of α -glucosidase inhibition, docking, and kinetic studies, *Bioorganic Chemistry*, 102, 2020,104071.
42. **Safari F***, Bayat M*, Nasri S, Karami S. Synthesis and evaluation of anti-tumor activity of novel triazolo[1,5-a] pyrimidine on cancer cells by induction of cellular apoptosis and inhibition of epithelial-to-mesenchymal transition process. *Bioorganic & Medicinal Chemistry Letters*, 2020. Volume 30, Issue 10. 127111.
43. Peytam F, Adib M*, Shourgashty R, Firoozpour L, Rahmanian-jazi M, Jahani M, Moghimi S, Divsalar K, Faramarzi MA, Mojtavavi S, **Safari F**, Mahdavi M, Foroumadi A*. An efficient and targeted synthetic approach towards new highly substituted 6-amino-pyrazolo[1,5-a]pyrimidines with α -glucosidase inhibitory activity. *Scientific Reports*, 2020.
44. **Safari F***, Rabieepor M, Jamalomid F, Baghaeifar Z, Khodaei L. Evaluation of Anti-cancer and Pro-apoptotic Activities of Iranian green tea extract (IGTE) against A549, PC3 and MCF-7 cancer cell lines. *Int J Basic Sci Med*. 2019; 4(3);113-118.
45. **Safari F***, Hosseini H, Bayat M*, Ranjbar A. Synthesis and evaluation of antimicrobial activity, cytotoxic and pro-apoptotic effects of novel spiro-4H-pyran derivatives. *RSC Advances*; 2019;9: 24843-24851.
46. Bayat M*, **Safari F***, Nasri S and Hosseini FH. Chemoselective synthesis and biological evaluation of novel nitrogen and sulfurcontaining heterocyclic compounds: substituted benzo[g]thiazolo[3,2-a]quinolones. *Monatshefte für Chemie-Chemical Monthly (MCCM)*. 150 (4); 703-10.
47. **Safari F***, Jodeiry Zaer S. Down regulation of Src family kinases activity using PP2 inhibitor has no effect on the elongation of Pragmin-transfected adenocarcinoma AGS cells. *Int J Basic Sci Med*. 2018; 3 (1): 46-50.

48. **Safari F***, Jodeiry Zaer S. Evaluation of Cell-Morphological Changes by *Helicobacter Pylori* CagA and Pragmin in AGS Human Gastric Carcinoma Cells. *Gene Cell Tissue*. :e 12598. doi: 10.5812/gct.12598. 2017.
49. **Safari F***. EPIYA (or-like) motifs in mammalian proteins. *JKSUS*.26 (4), 276-284. 2014.
50. **Safari F**, Suetsugu S*. The BAR Domain Superfamily Proteins from Subcellular Structures to Human Diseases. *Membranes*, 2, 1, 91-117, 2012.
51. **Safari F**, Naoko Murata-Kamiya, Yasuhiro Saito and Hatakeyama M*. Mammalian Pragmin regulates Src family kinases via the Glu-Pro-Ile-Tyr- Ala (EPIYA) motif that is exploited by bacterial effectors. *PNAS* (2011), 108 (36), 14938-43.
52. Foroumadi A*, Safavi M, Emami S, Siavoshi F, Najjari S, **Safari F**, Shafiee A. Structure-activity relationship study of a series of N-substitutedpiperazinyl-fluoroquinolones as anti-*Helicobacter pylori* agents. *Med Chem*. 2008.
53. Foroumadi A*, Rineh A, Emami S, Siavoshi F, Massarrat S, **Safari F**, Rajabalian S, Falahati M, Lotfali E, Shafiee A. Synthesis and anti-*Helicobacter pylori* activity of 5-(nitroaryl)-1,3,4-thiadiazoles with certain sulfur containing alkyl side chain. *Bioorg Med Chem Lett*. 2008. 1;18(11):3315-20.
54. Mirzaei J, Siavoshi F, Emami S, **Safari F**, Khoshayand MR, Shafiee A, Foroumadi A*. Synthesis and in vitro anti-*Helicobacter pylori* activity of N-[5-(5-nitro-2-heteroaryl)-1,3,4-thiadiazol-2-yl] thiomorpholines and related compounds. *Eur J Med Chem*. 2008;43(8):1575-80.
55. Mohammadhosseini N, Letafat B, Siavoshi F, Emami S, **Safari F**, Shafiee A and Foroumadi A*. Synthesis and invitro anti- *Helicobacter pylori* activity of 2-[(cholorobenzyl)thio]-5-(5-nitro-2-furyl)-1,3,4-thiadiazoles. *Midicinal Chemistry Research*. 2008.
56. Latifi-Navid S, Siavoshi F*, **Safari F**, Malekzadeh R, Massarrat S. Antimicrobial effectiveness of ketoconazole against metronidazole-resistant *Helicobacter pylori* isolates from Iranian dyspeptic patients. *J Antimicrob Chemother*. 2007,59(1):160-1. doi: 10.1093/jac/dkl449.
57. Siavoshi F*, **Safari F**, Doratotaj D, Khatami GR, Fallahi GH, Mirnaseri MM. Antimicrobial resistance of *Helicobacter pylori* isolates from Iranian adults and children. *Arch Iran Med*. 2006, 9(4):308-14.

Presentation

Third international and fifteenth Iranian genetics congress, Tehran, Iran, 2018 (Poster presentation).

Organizer of training workshop with this title “SDS-PAGE and Immunoblotting” 2018, University of Guilan, Rasht, Iran.

20th National and 8th international congress on Biology, University of Maragheh, Tabriz, Iran, 2018 (Poster presentation).

Organizer of training workshop with this title “Scientific & practical training of transfection methods in adherent cells & non-adherent cells” 2017, University of Guilan, Rasht, Iran.

Organizer of training workshop with this title “Scientific & practical training of Cell Culture” 2017, University of Guilan, Rasht, Iran.

52nd Annual meeting of Japan Society of clinical oncology, Yokohama, Japan, 2014 (oral presentation).

4th international conference on clinical & experimental ophthalmology, Baltimore, USA, 2014 (Poster presentation).

To give lecture to students of Seishin Gakuen High School and Junior High School in the JSPS Science Dialogue Program, Tokyo, Japan, 2013.

Internal symposium in the Institute for Molecular and Cellular Bioscience (IMCB), The University of Tokyo, Tokyo, Japan, 2013 (As referee).

18th IMCB symposium celebrating 60th anniversary of the foundation SMC (Structural Maintenance of Chromosomes) proteins from molecule to disease, Tokyo, Japan, 2013.

Third International Rb Meeting Monterey, California, USA, 2013 (Poster presentation).

72th Annual Meeting of the Japanese Cancer Association, Yokohama, Japan, 2013 (Poster presentation).

65th Annual Meeting of the Japanese Society for Cell Biology, Nagoya, Japan, 2013 (Oral and Poster presentation).

Internal symposium in the Institute for Molecular and Cellular Bioscience, The University of Tokyo, Tokyo, Japan, 2012 (Oral presentation).

71th Annual Meeting of the Japanese Cancer Association, Sapporo, Japan, 2012 (Oral presentation).

12th Annual symposium Bio UT, The University of Tokyo, Tokyo, Japan. 2012 (Poster presentation).

Carcinogenic spiral 1st International Symposium & 9th International Conference protein phosphatase, Tokyo, Japan, 201.

70th Annual Meeting of the Japanese Cancer Association. Nagoya, Japan, 2011(Oral presentation).

69th Annual Meeting of the Japanese Cancer Association. Osaka, Japan, 2010.

29th International Symposium on Cancer, Hokkaido, Sapporo, Japan, 2009.

Molecular Biology Society of Japan (MBSJ) - 8th Spring Symposium, Hokkaido, Sapporo, 2008.

The 12th Korea-Japan Cancer Research Workshop, Sapporo, Japan, 2007.

5th *Helicobacter pylori* seminar, Tehran, Iran. 4th of Iranian international congress of gastroenterology and hepatology, Tehran, Iran, 2004 (oral and Poster Presentation respectively).

Professional Membership

- ✓ Iranian Association of Gastroenterology and Hepatology (IAGH).
- ✓ Japanese Cancer Association member (JCA).
- ✓ The American Society for Cell Biology (ASCB).