

CURRICULUM VITAE

Mohammad Jalili Nik, PhD

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EDUCATION

Degree	Field of Specialization	Name of Institution	City	Country	Period
Postdoctoral Fellowship	Pharmacology	Mashhad University of Medical Sciences	Mashhad	Iran	2023-2024
Ph.D.	Medical Biochemistry	Mashhad University of Medical Sciences	Mashhad	Iran	2018- 2023
M.Sc.	Medical Biochemistry	Mashhad University of Medical Sciences	Mashhad	Iran	2016-2018
B.Sc.	Medical Laboratory Sciences	Mashhad University of Medical Sciences	Mashhad	Iran	2012-2016

RESEARCH INTERESTS

- Cancer (GBM)
- Targeted therapy
- Drug discovery
- Recombinant Protein

HONORS and Grants

2022

- Selected as top young researcher in Iran during the 17th National Congress of Biochemistry and 8th International Congress of Biochemistry and Molecular Biology, Tehran, Iran
- Top researcher in Mashhad University of Medical Sciences, Mashhad, Iran

2019

- Research grant (DAAD), Münster internship grant, Germany

2018

- Top researcher in Mashhad University of Medical Sciences, Mashhad, Iran

2016

- Member of Biochemical society of the Islamic Republic of Iran

Publications

- 2024
 - (1) **Jalili-Nik M**, Soltani A, Hashemy SI, Rafatpanah H, Rezaee SA, Gorji A, et al. **Development of potential inhibitors for human T-lymphotropic virus type I integrase enzyme: a molecular modeling approach.** Current Computer-Aided Drug Design. 2024;20(1):72-86.
 - (2) Mousavi SH, **Jalili-Nik M**, Soukhtanloo M, Soltani A, Abbasinezhad-Moud F, Mollazadeh H, et al. **Auraptene inhibits migration, invasion and metastatic behavior of human malignant glioblastoma cells: An in vitro and in silico study.** Avicenna Journal of Phytomedicine. 2024;14(3).
 - (3) Kazemian Kakhki M, Mirzavi F, **Jalili-Nik M**, Einafshar E, Nadi Yazdi H, Soukhtanloo M. **Anticancer Effects of Beta-Cyclodextrin-Graphene Oxide Nanoparticles Loaded with Selenium on Human Malignant Glioblastoma Cells.** BioNanoScience. 2024;1-13.
 - (4) Rezaei N, Al-Asady Mohammed A, Hashemzahi M, Binabaj Moradi M, Rahmani F, Avan A, et al. **Crocins Potentiate Anti-tumor Properties of 5-FU by Regulating Cell Proliferation and Tumor Necrosis in Breast Cancer.** Letters in Drug Design & Discovery. 2024;21(15):3161-8.
- 2023
 - (5) Mashkani B, **Jalili Nik M**, Rezaee SA, Boostani R. **Advances in the treatment of human T-cell**

lymphotropic virus type-I associated myelopathy. *Expert Rev Neurother*. 2023;1-16.

(6) Najafi Z, Einafshar E, Mirzavi F, Amiri H, **Jalili-Nik M**, Soukhtanloo M. **Protective effect of hesperidin-loaded selenium nanoparticles stabilized by chitosan on glutamate-induced toxicity in PC12 cells.** *Journal of Nanoparticle Research*. 2023;25(9):178.

(7) Izadi A, Sadeghi A, **Jalili-Nik M**, Mirzavi F, Afshari AR, Soukhtanloo M. **Combination of Alpha-Lipoic Acid and Auraptene Induces Apoptosis and Prevents Proliferation of the Human U-87 Glioblastoma Cells.** *Revista Brasileira de Farmacognosia*. 2023;33(6):1177-86.

(8) Izadi A, Soukhtanloo M, Mirzavi F, **Jalili-Nik M**, Sadeghi A. **Alpha-Lipoic Acid, Auraptene, and Particularly Their Combination Prevent the Metastasis of U87 Human Glioblastoma Cells. Evidence-Based Complementary and Alternative Medicine.** 2023;2023:8618575.

(9) Tajvar Nasab N, **Jalili-Nik M**, Afshari AR, Rezaei Farimani A, Soukhtanloo M. **Urolithin B inhibits proliferation and migration and promotes apoptosis and necrosis by inducing G2/M arrest and targeting MMP-2/-9 expression in osteosarcoma cells.** *Journal of Biochemical and Molecular Toxicology*. n/a(n/a):e23486.

(10) Rashidi, R.; Jahed Avval, F. B.; Ghasemian, S.; Sadeghnia, H. R.; Mousavi, S. H.; Hooshmand, S.; **Jalili-Nik, M.**; Amiri, M. S.; Ghorbani, A. **Hydroalcoholic extract of psoralea drupacea inhibits proliferation and migration of hepatocellular carcinoma cells and decreases angiogenesis in chick chorioallantoic membrane.** *Letters in Drug Design & Discovery* 2023, 20 (9), 1284-1294.

(11) Ghorbanzadeh Neghab, M.; **Jalili-Nik, M.**; Soltani, A.; Afshari, A. R.; Hassanian, S. M.; Rafatpanah, H.; Rezaee, S. A.; Sadeghnia, H. R.; Ataei Azimi, S.; Mashkani, B. **Rigosertib is more potent than wortmannin and rapamycin against adult T-cell leukemia-lymphoma.** *Biofactors* 2023. DOI: 10.1002/biof.1985 From NLM.

(12) **Jalili-Nik, M.**; Soltani, A.; Hashemy, S. I.; Rafatpanah, H.; Rezaee, S. A.; Gorji, A.; Griffith, R.; Mashkani, B. **Development of Potential Inhibitors for Human T-lymphotropic virus type I Integrase enzyme: A molecular modeling approach.** *Curr Comput Aided Drug Des* 2023. DOI: 10.2174/1573409919666230419082839 From NLM.

(13) Alavi, M. S.; Fanoudi, S.; Hosseini, A.; **Jalili-Nik, M.**; Bagheri, A.; Sadeghnia, H. R. **Everolimus attenuates glutamate-induced PC12 cells death.** *Int J Neurosci* 2023, 133 (4), 457-466. DOI: 10.1080/00207454.2021.1929210 From NLM.

(14) Abbasinezhad-Moud, F.; Mirzavi, F.; Rakhshandeh, H.; Mohebbati, R.; Forouzanfar, F.; **Jalili-Nik, M.**; Azadi, N.; Sanati, M.; Afshari, A. R.; Soukhtanloo, M. **The Effects of Urolithin B and Auraptene on Quinolinic Acid-induced Toxicity in the SH-SY5Y Neuroblastoma Cell Line.** *Altern Lab Anim* 2023, 51 (1), 30-38. DOI: 10.1177/02611929221146752 From NLM.

• 2022

(15) Saghi, H.; Mirzavi, F.; Afshari, A. R.; **Jalili-Nik, M.**; Mashkani, B.; Soukhtanloo, M. **Bee venom induces anti-tumor effects in HT-29 colon cancer cells through regulation of cell proliferation and apoptosis.** *Biologia* 2022, 77 (12), 3595-3602.

(16) Mansouri, S.; Hosseini, M.; Alipour, F.; Beheshti, F.; Rakhshandeh, H.; Mohammadipour, A.; Anaeigoudari, A.; **Jalili-Nik, M.**; Khazdair, M. R.; Jahani, A. **Neuroprotective effects of the fractions of Ocimum basilicum in seizures induced by pentyleneetetrazole in mice.** *Avicenna J Phytomed* 2022, 12 (6), 614-626. DOI: 10.22038/ajp.2022.20470 From NLM.

(17) Foroutan, Z.; Afshari, A. R.; Sabouri, Z.; Mostafapour, A.; Far, B. F.; **Jalili-Nik, M.**; Darroudi, M. **Plant-based synthesis of cerium oxide nanoparticles as a drug delivery system in improving the anticancer effects of free temozolomide in glioblastoma (U87) cells.** *Ceramics International* 2022, 48 (20), 30441-30450.

(18) **Jalili-Nik, M.**; Soukhtanloo, M.; Mojarrad, M.; Sadeghian, M. H.; Mashkani, B. **Challenges of expressing recombinant human tissue factor as a secreted protein in Pichia pastoris.** *Prep Biochem Biotechnol* 2022, 52 (9), 1001-1007. DOI: 10.1080/10826068.2021.2023823 From NLM.

(19) Memari, F.; Mirzavi, F.; **Jalili-Nik, M.**; Afshari, A. R.; Ghorbani, A.; Soukhtanloo, M. **Tumor-Inhibitory Effects of Zerumbone Against HT-29 Human Colorectal Cancer Cells.** *Int J Toxicol* 2022, 41 (5), 402-411. DOI: 10.1177/10915818221104417 From NLM.

(20) Bibak, B.; Shakeri, F.; Keshavarzi, Z.; Mollazadeh, H.; Javid, H.; **Jalili-Nik, M.**; Sathyapalan, T.; Afshari, A. R.; Sahebkar, A. **Anticancer Mechanisms of Berberine: A Good Choice for Glioblastoma Multiforme Therapy.** *Curr Med Chem* 2022, 29 (26), 4507-4528. DOI: 10.2174/0929867329666220224112811 From NLM.

(21) Afshari, A. R.; Sanati, M.; Aminyavari, S.; Shakeri, F.; Bibak, B.; Keshavarzi, Z.; Soukhtanloo, M.; **Jalili-Nik, M.**; Sadeghi, M. M.; Mollazadeh, H.; et al. **Advantages and drawbacks of dexamethasone in glioblastoma multiforme.** *Crit Rev Oncol Hematol* 2022, 172, 103625. DOI: 10.1016/j.critrevonc.2022.103625 From NLM.

(22) **Jalili-Nik, M.**; Afshari, A. R.; Mahboobnia, K.; Guest, P. C.; Jamialahmadi, T.; Sahebkar, A. **Analysis of Cytotoxic Effects of Zerumbone in Malignant Glioblastoma Cells.** *Methods Mol Biol* 2022, 2343, 361-369. DOI: 10.1007/978-1-0716-1558-4_26 From NLM.

(23) **Jalili-Nik, M.**; Mahboobnia, K.; Guest, P. C.; Majeed, M.; Al-Rasadi, K.; Jamialahmadi, T.; Sahebkar, A. **Impact of Curcumin on Hepatic Low-Density Lipoprotein Uptake.** *Methods Mol Biol* 2022, 2343, 395-400. DOI: 10.1007/978-1-0716-1558-4_29 From NLM.

- 2021
 - (24) Poonaki, E.; Ariakia, F.; **Jalili-Nik, M.**; Shafiee Ardestani, M.; Tondro, G.; Samini, F.; Ghasemi, S.; Sahab-Negah, S.; Gorji, A. **Targeting BMI-1 with PLGA-PEG nanoparticle-containing PTC209 modulates the behavior of human glioblastoma stem cells and cancer cells.** *Cancer Nanotechnology* 2021, 12, 1-20.
 - (25) Afshari, A. R.; **Jalili-Nik, M.**; Abbasinezhad-Moud, F.; Javid, H.; Karimi, M.; Mollazadeh, H.; Jamialahmadi, T.; Sathyapalan, T.; Sahebkar, A. **Anti-tumor Effects of Curcuminoids in Glioblastoma Multiforme: An Updated Literature Review.** *Curr Med Chem* 2021, 28 (39), 8116-8138. DOI: 10.2174/092986732766620111145212 From NLM.
 - (26) Mohebbati, R.; **Jalili-Nik, M.**; Saghi, H.; Sadatfaraji, H.; Soukhtanloo, M. **Zataria multiflora and its main ingredient, carvacrol, affect on the renal function, histopathological, biochemical and antioxidant parameters in adriamycin-induced nephrotic rats.** *Arch Physiol Biochem* 2021, 127 (5), 453-461. DOI: 10.1080/13813455.2019.1650069 From NLM.
 - (27) **Jalili-Nik, M.**; Soltani, A.; Mashkani, B.; Rafatpanah, H.; Hashemy, S. I. **PD-1 and PD-L1 inhibitors foster the progression of adult T-cell Leukemia/Lymphoma.** *Int Immunopharmacol* 2021, 98, 107870. DOI: 10.1016/j.intimp.2021.107870 From NLM.
 - (28) **Jalili-Nik, M.**; Afshari, A. R.; Sabri, H.; Bibak, B.; Mollazadeh, H.; Sahebkar, A. **Zerumbone, a ginger sesquiterpene, inhibits migration, invasion, and metastatic behavior of human malignant glioblastoma multiforme in vitro.** *Biofactors* 2021, 47 (5), 729-739. DOI: 10.1002/biof.1756 From NLM.
 - (29) **Jalili-Nik, M.**; Abbasinezhad-Moud, F.; Sahab-Negah, S.; Maghrouni, A.; Etezzad Razavi, M.; Khaleghi Ghadiri, M.; Stummer, W.; Gorji, A. **Antitumor Effects of 5-Aminolevulinic Acid on Human Malignant Glioblastoma Cells.** *Int J Mol Sci* 2021, 22 (11). DOI: 10.3390/ijms22115596 From NLM.
 - (30) Khajavi Rad, A.; Entezari Heravi, N.; Kamkar-Del, Y.; Abbasnezhad, A.; **Jalili-Nik, M.**; Shafei, M. N.; Mohebbati, R. **A standardized extract of Ziziphus jujuba Mill protects against adriamycin-induced liver, heart, and brain toxicity: An oxidative stress and biochemical approach.** *J Food Biochem* 2021, 45 (4), e13698. DOI: 10.1111/jfbc.13698 From NLM.
 - (31) Maghrouni, A.; Givari, M.; **Jalili-Nik, M.**; Mollazadeh, H.; Bibak, B.; Sadeghi, M. M.; Afshari, A. R.; Johnston, T. P.; Sahebkar, A. **Targeting the PD-1/PD-L1 pathway in glioblastoma multiforme: Preclinical evidence and clinical interventions.** *Int Immunopharmacol* 2021, 93, 107403. DOI: 10.1016/j.intimp.2021.107403 From NLM.
 - (32) Ghaeni Pasavei, A.; Mohebbati, R.; **Jalili-Nik, M.**; Mollazadeh, H.; Ghorbani, A.; Nosrati Tirkani, A.; Taraz Jamshidi, S.; Hashemy, S. I.; Heidarian Miri, H.; Soukhtanloo, M. **Effects of Rhus coriaria L. hydroalcoholic extract on the lipid and antioxidant profile in high fat diet-induced hepatic steatosis in rats.** *Drug Chem Toxicol* 2021, 44 (1), 75-83. DOI: 10.1080/01480545.2018.1533024 From NLM.
 - (33) Afshari, A. R.; Mollazadeh, H.; Mohtashami, E.; Soltani, A.; Soukhtanloo, M.; Hosseini, A.; **Jalili-Nik, M.**; Vahedi, M. M.; Roshan, M. K.; Sahebkar, A. **Protective Role of Natural Products in Glioblastoma Multiforme: A Focus on Nitric Oxide Pathway.** *Curr Med Chem* 2021, 28 (2), 377-400. DOI: 10.2174/0929867327666200130104757 From NLM.
- 2020
 - (34) Afshari, A. R.; Mollazadeh, H.; Soukhtanloo, M.; Hosseini, A.; Mohtashami, E.; **Jalili-Nik, M.**; Modaresi, S. M. S.; Soltani, A.; Sahebkar, A. **Modulation of Calcium Signaling in Glioblastoma Multiforme: A Therapeutic Promise for Natural Products.** *Mini Rev Med Chem* 2020, 20 (18), 1879-1899. DOI: 10.2174/1389557520666200807133659 From NLM.
 - (35) Jahani Yazdi, A.; Javanshir, S.; Soukhtanloo, M.; **Jalili-Nik, M.**; Jafarian, A. H.; Iranshahi, M.; Hasanpour, M.; Khatami, S. M.; Hosseini, A.; Amiri, M. S.; et al. **Acute and sub-acute toxicity evaluation of the root extract of Rheum turkestanicum Janisch.** *Drug Chem Toxicol* 2020, 43 (6), 609-615. DOI: 10.1080/01480545.2018.1561713 From NLM.
 - (36) Javanshir, S.; Soukhtanloo, M.; **Jalili-Nik, M.**; Yazdi, A. J.; Amiri, M. S.; Ghorbani, A. **Evaluation Potential Antidiabetic Effects of Ferula latisepta in Streptozotocin-Induced Diabetic Rats.** *J Pharmacopuncture* 2020, 23 (3), 158-164. DOI: 10.3831/kpi.2020.23.3.158 From NLM.
 - (37) Sahab-Negah, S.; Ariakia, F.; **Jalili-Nik, M.**; Afshari, A. R.; Salehi, S.; Samini, F.; Rajabzadeh, G.; Gorji, A. **Curcumin Loaded in Niosomal Nanoparticles Improved the Anti-tumor Effects of Free Curcumin on Glioblastoma Stem-like Cells: an In Vitro Study.** *Mol Neurobiol* 2020, 57 (8), 3391-3411. DOI: 10.1007/s12035-020-01922-5 From NLM.
 - (38) Mohtashami, E.; Shafaei-Bajestani, N.; Mollazadeh, H.; Mousavi, S. H.; **Jalili-Nik, M.**; Sahebkar, A.; Afshari, A. R. **The Current State of Potential Therapeutic Modalities for Glioblastoma Multiforme: A Clinical Review.** *Curr Drug Metab* 2020, 21 (8), 564-578. DOI: 10.2174/1389200221666200714101038 From NLM.
 - (39) **Jalili-Nik, M.**; Sadeghi, M. M.; Mohtashami, E.; Mollazadeh, H.; Afshari, A. R.; Sahebkar, A. **Zerumbone Promotes Cytotoxicity in Human Malignant Glioblastoma Cells through Reactive Oxygen Species (ROS) Generation.** *Oxid Med Cell Longev* 2020, 2020, 3237983. DOI: 10.1155/2020/3237983 From NLM.
 - (40) Soukhtanloo, M.; Mohtashami, E.; Maghrouni, A.; Mollazadeh, H.; Mousavi, S. H.; Roshan, M. K.; Tabatabaeizadeh, S. A.; Hosseini, A.; Vahedi, M. M.; **Jalili-Nik, M.**; et al. **Natural products as promising targets in glioblastoma multiforme: a focus on NF-κB signaling pathway.** *Pharmacol Rep* 2020, 72 (2),

285-295. DOI: 10.1007/s43440-020-00081-7 From NLM.

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- (41) **Jalili-Nik, M.**; Sabri, H.; Zamiri, E.; Soukhtanloo, M.; Roshan, M. K.; Hosseini, A.; Mollazadeh, H.; Vahedi, M. M.; Afshari, A. R.; Mousavi, S. H. **Cytotoxic Effects of Ferula Latisecta on Human Glioma U87 Cells.** *Drug Res (Stuttg)* 2019, 69 (12), 665-670. DOI: 10.1055/a-0986-6543 From NLM.
- (42) Nosrati Tirkani, A.; Arjmand, M. H.; **Jalili-Nik, M.**; Hamidi Alamdari, D.; Shah Farhat, A. **Comparison of colony-forming efficiency between breast milk stem/progenitor cells of mothers with preterm and full-term delivery.** *Iranian Journal of Neonatology IJN* 2019, 10 (3), 38-44.
- (43) Afshari, A. R.; Roshan, M. K.; Soukhtanloo, M.; Ghorbani, A.; Rahmani, F.; **Jalili-Nik, M.**; Vahedi, M. M.; Hoseini, A.; Sadeghnia, H. R.; Mollazadeh, H. **Cytotoxic effects of auraptene against a human malignant glioblastoma cell line.** *Avicenna journal of phytomedicine* 2019, 9 (4), 334.
- (44) Soleimani, A.; **Jalili-Nik, M.**; Avan, A.; Ferns, G. A.; Khazaei, M.; Hassanian, S. M. **The role of HSP27 in the development of drug resistance of gastrointestinal malignancies: Current status and perspectives.** *J Cell Physiol* 2019, 234 (6), 8241-8248. DOI: 10.1002/jcp.27666 From NLM.
- (45) **Jalili-Nik, M.**; Soukhtanloo, M.; Javanshir, S.; Jahani Yazdi, A.; Esmailizadeh, M.; Jafarian, A. H.; Ghorbani, A. **Effects of ethanolic extract of Ferula gummosa oleo-resin in a rat model of streptozotocin-induced diabetes.** *Res Pharm Sci* 2019, 14 (2), 138-145. DOI: 10.4103/1735-5362.253361 From NLM.
- (46) Soltani, A.; Salmaninejad, A.; **Jalili-Nik, M.**; Soleimani, A.; Javid, H.; Hashemy, S. I.; Sahebkar, A. **5'-Adenosine monophosphate-activated protein kinase: A potential target for disease prevention by curcumin.** *J Cell Physiol* 2019, 234 (3), 2241-2251. DOI: 10.1002/jcp.27192 From NLM.
- (47) Afshari, A. R.; **Jalili-Nik, M.**; Soukhtanloo, M.; Ghorbani, A.; Sadeghnia, H. R.; Mollazadeh, H.; Roshan, M. K.; Rahmani, F.; Sabri, H.; Vahedi, M. M. **Auraptene-induced cytotoxicity mechanisms in human malignant glioblastoma (U87) cells: role of reactive oxygen species (ROS).** *EXCLI journal* 2019, 18, 576.

- 2018

- (48) Mohebbati, R.; Paseban, M.; Soukhtanloo, M.; **Jalili-Nik, M.**; Shafei, M. N.; Yazdi, A. J.; Rad, A. K. **Effects of standardized Zataria multiflora extract and its major ingredient, Carvacrol, on Adriamycin-induced hepatotoxicity in rat.** *biomedical journal* 2018, 41 (6), 340-347.
- (49) Mohebbati, R.; **Jalili-Nik, M.**; Paseban, M.; Shafei, M. N.; Rad, A. K. **Effects of Zataria multiflora extract and carvacrol on doxorubicin-induced oxidative stress in rat brain.** *Pharmaceutical sciences* 2018, 24 (3), 187-192.
- (50) **Jalili-Nik, M.**; Shahri, Z. S.; Hashemy, S. I.; Mashkani, B. **Effects of Major Ingredients in Cattle Milk on Enzyme Kinetics of Recombinant β -galactosidase (BGalP) Expressed in Pichia pastoris.** *APPLIED FOOD BIOTECHNOLOGY* 2018, 5 (4), 205-212.
- (51) **Jalili-Nik, M.**; Soltani, A.; Moussavi, S.; Ghayour-Mobarhan, M.; Ferns, G. A.; Hassanian, S. M.; Avan, A. **Current status and future prospective of Curcumin as a potential therapeutic agent in the treatment of colorectal cancer.** *J Cell Physiol* 2018, 233 (9), 6337-6345. DOI: 10.1002/jcp.26368 From NLM.
- (52) Iranmanesh, M.; Mohebbati, R.; Forouzanfar, F.; Roshan, M. K.; Ghorbani, A.; **Nik, M. J.**; Soukhtanloo, M. **In vivo and In vitro effects of ethanolic extract of Trigonella foenum-graecum L. seeds on proliferation, angiogenesis and tube formation of endothelial cells.** *Res Pharm Sci* 2018, 13 (4), 343-352. DOI: 10.4103/1735-5362.235161 From NLM.

A full list of my publication is available at: <https://scholar.google.com/citations?user=7we8dd5dKk8C&hl=en>