

Fariba Khodagholi

Ph. D. of Biochemistry
M.B.A in pharmaceutical business

Phone: +98-21-22429768-9

Fax: +98-21-22432047

P.O.Box : 19615-1178

khodagholi@sbmu.ac.ir

Educational Background:

(2002-2006) Ph.D., Biochemistry, Institute of Biochemistry and Biophysics, Tehran University, Tehran, Iran

Thesis entitled "*Kinetic aspects of protein refolding using artificial chaperones*".

(2000-2002) M. Sc, Biochemistry, Institute of Biochemistry and Biophysics, Tehran University, Tehran, Iran

Thesis entitled "*The effect of temperature on the binding of cyanide to Cytochrome d Salmonella typhimurium in intact cell and solubilized enzyme*".

(1995-2000) B. S., Microbiology, Faculty of Science, Tehran University, Tehran, Iran

(2010-2011) M.B.A in pharmaceutical industry, Tehran University, Tehran, Iran Thesis entitled "*Market of recombinant proteins in Iran and its comparison to other countries*".

Language skills:

Persian (native); English (fluently); French (fluently).

Publications:

1. Khatami L, Khodaghohi F, Motamedi F. Reversible inactivation of interpeduncular nucleus impairs memory consolidation and retrieval but not learning in rats: A behavioral and molecular study. *Behav Brain Res.* 2018 Apr 16;342:79-88.
2. Kachooei E, Mozaffarian F, Khodaghohi F, Sadeghi P, Karami L, Ghasemi A, Vahdat E, Saboury AA, Sheibani N, Moosavi-Movahedi AA. Paclitaxel inhibited lysozyme fibrillation by increasing colloidal stability through formation of "off-pathway" oligomers. *Int J Biol Macromol.* 2018 Jan 17;111:870-879.
3. Ryan F, Khodaghohi F, Dargahi L, Minai-Tehrani D, Ahmadiani A. Temporal Pattern and Crosstalk of Necroptosis Markers with Autophagy and Apoptosis Associated Proteins in Ischemic Hippocampus. *Neurotox Res.* 2018 Jan 8.
4. Salehpour M, Khodaghohi F, Zeinaddini Meymand A, Nourshahi M, Ashabi G. Exercise training with concomitant nitric oxide synthase inhibition improved anxiogenic behavior, spatial cognition, and BDNF/P70S6 kinase activation in 20-month-old rats. *Appl Physiol Nutr Metab.* 2018 Jan;43(1):45-53.
5. Bahaeddin Z, Yans A, Khodaghohi F, Sahranavard S. Dietary supplementation with *Allium hirtifolium* and/or *Astragalus hamosus* improved memory and reduced neuro-inflammation in the rat model of Alzheimer's disease. *Appl Physiol Nutr Metab.* 2017 Dec 20.
6. Nikseresht S, Khodaghohi F, Dargahi L, Ahmadiani A. Necroptosis Resumes Apoptosis in Hippocampus but Not in Frontal Cortex. *J Cell Biochem.* 2017 Dec;118(12):4628-4638.
7. Arsalandeh F, Khodaghohi F, Ahmadian S, Foolad F, Mohammadi Kamsorkh H, Moridi Farimani M, Shaerzadeh F. Prevention of recognition memory loss and moderation of mitochondrial dynamic tendency toward fusion by flavone derivatives in A β -injected rats: a comparison between two flavonoids with different polarity. *Nutr Neurosci.* 2017 Oct 9:1-7.
8. Nasoohi S, Simani L, Khodaghohi F, Nikseresht S, Faizi M, Naderi N. Coenzyme Q10 supplementation improves acute outcomes of stroke in rats pretreated with atorvastatin. *Nutr Neurosci.* 2017 Sep 26:1-9.
9. MohseniBandpi A, Eslami A, Shahsavani A, Khodaghohi F, Alinejad A. Physicochemical characterization of ambient PM_{2.5} in Tehran air and its potential cytotoxicity in human lung epithelial cells (A549). *Sci Total Environ.* 2017 Sep 1;593-594:182-190.

10. Khodagholi F, Shaerzadeh F, Montazeri F. Mitochondrial aconitase in Neurodegenerative disorders: role of a metabolism-related molecule in neurodegeneration. *Curr Drug Targets*. 2017 Aug 16.
11. Bahaeddin Z, Yans A, Khodagholi F, Hajimehdipour H, Sahranavard S. Hazelnut and neuroprotection: Improved memory and hindered anxiety in response to intra-hippocampal A β injection. *Nutr Neurosci*. 2017 Jul;20(6):317-326.
12. Ashabi G, Sarkaki A, Khodagholi F, Zareh Shahamati S, Goudarzvand M, Farbood Y, Badavi M, Khalaj L. Subchronic metformin pretreatment enhances novel object recognition memory task in forebrain ischemia: behavioural, molecular, and electrophysiological studies. *Can J Physiol Pharmacol*. 2017 Apr;95(4):388-395.
13. Memariani Z, Hajimahmoodi M, Minaee B, Khodagholi F, Yans A, Rahimi R, Amin G, Moghaddam G, Toliyat T, Sharifzadeh M. Protective Effect of a Polyherbal Traditional Formula Consisting of *Rosa damascena* Mill., *Glycyrrhiza glabra* L. And *Nardostachys jatamansi* DC., Against Ethanol-induced Gastric Ulcer. *Iran J Pharm Res*. 2017 Spring;16(2):694-707.
14. Siahposht-Khachaki A, Fatahi Z, Yans A, Khodagholi F, Haghparast A. Involvement of AMPA/Kainate Glutamate Receptor in the Extinction and Reinstatement of Morphine-Induced Conditioned Place Preference: A Behavioral and Molecular Study. *Cell Mol Neurobiol*. 2017 Mar;37(2):315-328.
15. Karbaschi R, Zardooz H, Khodagholi F, Dargahi L, Salimi M, Rashidi F. Maternal high-fat diet intensifies the metabolic response to stress in male rat offspring. *Nutr Metab (Lond)*. 2017 Feb 28;14:20.
16. BonakdarYazdi B, Khodagholi F, Shaerzadeh F, Sharifzadeh A, Ahmadi R, Sanati M, Mehdizadeh H, Payandehmehr B, Vali L, Jahromi MM, Taghizadeh G, Sharifzadeh M. The effect of arsenite on spatial learning: Involvement of autophagy and apoptosis. *Eur J Pharmacol*. 2017 Feb 5;796:54-61.
17. Pourbadie HG, Naderi N, Delavar HM, Hosseinzadeh M, Mehranfard N, Khodagholi F, Janahmadi M, Motamedi F. Decrease of high voltage Ca²⁺ currents in the dentate gyrus granule cells by entorhinal amyloidopathy is reversed by calcium channel blockade. *Eur J Pharmacol*. 2017 Jan 5;794:154-161.
18. Rezaei R, Nourshahi M, Khodagholi F, Haghparast A, Nasoohi S, Bigdeli M, Ashabi G. Differential impact of treadmill training on stroke-induced neurological disorders. *Brain Inj*. 2017;31(13-14):1910-1917.

19. Fakharnia F, Khodagholi F, Dargahi L, Ahmadiani A. Prevention of Cyclophilin D-Mediated mPTP Opening Using Cyclosporine-A Alleviates the Elevation of Necroptosis, Autophagy and Apoptosis-Related Markers Following Global Cerebral Ischemia-Reperfusion. *J Mol Neurosci*. 2017 Jan;61(1):52-60.
20. Simani L, Naderi N, Khodagholi F, Mehrpour M, Nasoohi S. Association of Long-Term Atorvastatin with Escalated Stroke-Induced Neuroinflammation in Rats. *J Mol Neurosci*. 2017 Jan;61(1):32-41.
21. Ramezani M, Darbandi N, Khodagholi F, Hashemi A. Myricetin protects hippocampal CA3 pyramidal neurons and improves learning and memory impairments in rats with Alzheimer's disease. *Neural Regen Res*. 2016 Dec;11(12):1976-1980.
22. Salimi M, Zardooz H, Khodagholi F, Rostamkhani F, Shaerzadeh F. High-fat diet with stress impaired islets' insulin secretion by reducing plasma estradiol and pancreatic GLUT2 protein levels in rats' proestrus phase. *J Physiol Pharmacol*. 2016 Oct;67(5):653-666.
23. Vakilzadeh G, Khodagholi F, Ghadiri T, Ghaemi A, Noorbakhsh F, Sharifzadeh M, Gorji A. The Effect of Melatonin on Behavioral, Molecular, and Histopathological Changes in Cuprizone Model of Demyelination. *Mol Neurobiol*. 2016 Sep;53(7):4675-84.
24. Nassireslami E, Nikbin P, Amini E, Payandemehr B, Shaerzadeh F, Khodagholi F, Yazdi BB, Kebriaeezadeh A, Taghizadeh G, Sharifzadeh M. How sodium arsenite improve amyloid β -induced memory deficit? *Physiol Behav*. 2016 Sep 1;163:97-106.
25. Khoshneviszadeh M, Rahimian R, Fakhfour G, Payandemehr B, Khodagholi F, Ejtemaei Mehr S, Dehpour AR. Oxytocin is involved in the proconvulsant effects of Sildenafil: Possible role of CREB. *Toxicol Lett*. 2016 Aug 10;256:44-52.
26. Khodagholi F, Digaleh H, Motamedi F, Foolad F, Shaerzadeh F. Nitric Oxide and Protein Disulfide Isomerase Explain the Complexities of Unfolded Protein Response Following Intra-hippocampal A β Injection. *Cell Mol Neurobiol*. 2016 Aug;36(6):873-81.
27. Shariatpanahi M, Khodagholi F, Ashabi G, Bonakdar Yazdi B, Hassani S, Azami K, Abdollahi M, Noorbakhsh F, Taghizadeh G, Sharifzadeh M. The involvement of protein kinase G inhibitor in regulation of apoptosis and autophagy markers in spatial memory deficit induced by A β . *Fundam Clin Pharmacol*. 2016 Aug;30(4):364-75.
28. Khalifeh S, Oryan S, Khodagholi F, Digaleh H, Shaerzadeh F, Maghsoudi N, Zarrindast MR. Complexity of Compensatory Effects in Nr1f1 Knockdown: Linking Undeveloped

Anxiety-Like Behavior to Prevented Mitochondrial Dysfunction and Oxidative Stress. *Cell Mol Neurobiol.* 2016 May;36(4):553-63.

29. Mohammadi M, Guan J, Khodaghali F, Yans A, Khalaj S, Gholami M, Taghizadeh GH, Aliaghaei A, Abdollahi M, Ghahremani MH, Sharifzadeh M. Reduction of autophagy markers mediated protective effects of JNK inhibitor and bucladesine on memory deficit induced by A β in rats. *Naunyn Schmiedebergs Arch Pharmacol.* 2016 May;389(5):501-10.
30. Hosseinzadeh M, Nikseresht S, Khodaghali F, Naderi N, Maghsoudi N. Cannabidiol Post-Treatment Alleviates Rat Epileptic-Related Behaviors and Activates Hippocampal Cell Autophagy Pathway Along with Antioxidant Defense in Chronic Phase of Pilocarpine-Induced Seizure. *J Mol Neurosci.* 2016 Apr; 58(4):432-40.
31. Nategh M, Nikseresht S, Khodaghali F, Motamedi F. Inactivation of nucleus incertus impairs passive avoidance learning and long term potentiation of the population spike in the perforant path-dentate gyrus evoked field potentials in rats. *Neurobiol Learn Mem.* 2016 Apr;130:185-93.
32. Arezoomandan R, Khodaghali F, Haghparast A. Administration of the Glial Condition Medium in the Nucleus Accumbens Prolong Maintenance and Intensify Reinstatement of Morphine-Seeking Behavior. *Neurochem Res.* 2016 Apr; 41(4):855-68.
33. Azimi L, Kachooeian M, Khodaghali F, Yans A, Heysieattalab S, Vakilzadeh G, Vosoughi N, Sanati M, Taghizadeh G, Sharifzadeh M. Protective effects of salicylate on PKA inhibitor (H-89)-induced spatial memory deficit via lessening autophagy and apoptosis in rats. *Pharmacol Biochem Behav.* 2016 Nov - Dec;150-151:158-169.
34. Asadi F, Jamshidi AH, Khodaghali F, Yans A, Azimi L, Faizi M, Vali L, Abdollahi M, Ghahremani MH, Sharifzadeh M. Reversal effects of crocin on amyloid β -induced memory deficit: Modification of autophagy or apoptosis markers. *Pharmacol Biochem Behav.* 2015 Dec; 139(Pt A):47-58.
35. Sardari M, Rezayof A, Khodaghali F. Hippocampal signaling pathways are involved in stress-induced impairment of memory formation in rats. *Brain Res.* 2015 Nov 2; 1625:54-63.
36. Kamalinia G, Khodaghali F, Shaerzadeh F, Tavssolian F, Chaharband F, Atyabi F, Sharifzadeh M, Amini M, Dinarvand R. Cationic albumin-conjugated chelating agent as a novel brain drug delivery system in neurodegeneration. *Chem Biol Drug Des.* 2015 Nov;86(5):1203-14.

37. Zare N, Khalifeh S, Khodaghali F, Shahamati SZ, Motamedi F, Maghsoudi N. Geldanamycin Reduces A β -Associated Anxiety and Depression, Concurrent with Autophagy Provocation. *J Mol Neurosci*. 2015 Nov; 57(3):317-24.
38. Nikseresht S, Khodaghali F, Nategh M, Dargahi L., RIP1 Inhibition Rescues from LPS-Induced RIP3-Mediated Programmed Cell Death, Distributed Energy Metabolism and Spatial Memory Impairment, *J Mol Neurosci*. 2015 Jul 9.
39. Amini E, Nassireslami E, Payandemehr B, Khodaghali F, Foolad F, Khalaj S, Hamedani MP, Azimi L, Sharifzadeh M., Paradoxical role of PKA inhibitor on amyloid β -induced memory deficit, *Physiol Behav*. 2015 May 30;149:76-85.
40. Kamalinia G, Khodaghali F, Shaerzadeh F, Tavssolian F, Chaharband F, Atyabi F, Sharifzadeh M, Amini M, Dinarvand R., Cationic Albumin-Conjugated Chelating Agent as a Novel Brain Drug Delivery System in Neurodegeneration, *Chem Biol Drug Des*. 2015 May 14.
41. Arsalandeh F, Ahmadian S, Foolad F, Khodaghali F, Farimani MM, Shaerzadeh F., Beneficial Effect of Flavone Derivatives on A β -Induced Memory Deficit Is Mediated by Peroxisome Proliferator-Activated Receptor γ Coactivator 1 α : A Comparative Study, *Int J Toxicol*. 2015 May;34(3):274-83.
42. Sarkaki A, Farbood Y, Badavi M, Khalaj L, Khodaghali F, Ashabi G., Metformin improves anxiety-like behaviors through AMPK-dependent regulation of autophagy following transient forebrain ischemia., *Metab Brain Dis*. 2015 May 5.
43. Jafari A, Noursadeghi E, Khodaghali F, Saghiri R, Sauve R, Aliaghaei A, Eliassi A., Brain mitochondrial ATP-insensitive large conductance Ca(+2)-activated K(+) channel properties are altered in a rat model of amyloid- β neurotoxicity, *Exp Neurol*. 2015 Jul;269:8-16.
44. Pourbadie HG, Naderi N, Mehranfard N, Janahmadi M, Khodaghali F, Motamedi F., Preventing effect of L-type calcium channel blockade on electrophysiological alterations in dentate gyrus granule cells induced by entorhinal amyloid pathology, *PLoS One*. 2015 Feb 17;10(2):e0117555.
45. Aliaghaei A, Digaleh H, Khodaghali F, Ahmadiani A., Encapsulated Choroid Plexus Epithelial Cells Actively Protect Against Intrahippocampal A β -induced Long-Term Memory Dysfunction; Upregulation of Effective Neurogenesis with the Abrogated Apoptosis and Neuroinflammation, *J Mol Neurosci*. 2015 Jul;56(3):708-21.
46. Zare N, Motamedi F, Digaleh H, Khodaghali F, Maghsoudi N., Collaboration of geldanamycin-activated P70S6K and Hsp70 against beta-amyloid-induced hippocampal apoptosis: an approach to long-term memory and learning, *Cell Stress Chaperones*. 2015 Mar;20(2):309-19.

47. Nategh M, Nikseresht S, Khodaghohi F, Motamedi F., Nucleus incertus inactivation impairs spatial learning and memory in rats, *Physiol Behav.* 2015 Feb;139:112-20.
48. Ashabi G, Khalaj L, Khodaghohi F, Goudarzvand M, Sarkaki A., Pre-treatment with metformin activates Nrf2 antioxidant pathways and inhibits inflammatory responses through induction of AMPK after transient global cerebral ischemia, *Metab Brain Dis.* 2015 Jun;30(3):747-54.
49. Ahadi R, Khodaghohi F, Daneshi A, Vafae A, Mafi AA, Jorjani M., Diagnostic value of Serum Level of GFAP, NF-H and NSE Compared with Clinical Findings in Severity Assessment of Human Traumatic Spinal Cord Injury, *Spine (Phila Pa 1976).* 2014 Oct 22. [Epub ahead of print].
50. Shaerzadeh F, Motamedi F, Khodaghohi F., Inhibition of akt phosphorylation diminishes mitochondrial biogenesis regulators, tricarboxylic acid cycle activity and exacerbates recognition memory deficit in rat model of Alzheimer's disease, *Cell Mol Neurobiol.* 2014 Nov;34(8):1223-33.
51. Vakilzadeh G, Khodaghohi F, Ghadiri T, Darvishi M, Ghaemi A, Noorbakhsh F, Gorji A, Sharifzadeh M., Protective Effect of a cAMP Analogue on Behavioral Deficits and Neuropathological Changes in Cuprizone Model of Demyelination, *Mol Neurobiol.* 2014 Aug 17. [Epub ahead of print].
52. Ghorbanpoor S, Garcia-Segura LM, Haeri-Rohani A, Khodaghohi F, Jorjani M., Aromatase inhibition exacerbates pain and reactive gliosis in the dorsal horn of the spinal cord of female rats caused by spinothalamic tract injury, *Endocrinology.* 2014 Nov;155(11):4341-55.
53. Movaghati S, Moosavi-Movahedi AA, Khodaghohi F, Digaleh H, Kachooei E, Sheibani N., Sodium dodecyl sulphate modulates the fibrillation of human serum albumin in a dose-dependent manner and impacts the PC12 cells retraction, *Colloids Surf B Biointerfaces.* 2014 Oct 1;122:341-9.
54. Sadeghimahalli F, Karbaschi R, Zardooz H, Khodaghohi F, Rostamkhani F., Effect of early life stress on pancreatic isolated islets' insulin secretion in young adult male rats subjected to chronic stress, *Endocrine.* 2015 Mar;48(2):493-503.
55. Khalifeh S, Oryan S, Digaleh H, Shaerzadeh F, Khodaghohi F, Maghsoudi N, Zarrindast MR., Involvement of Nrf2 in development of anxiety-like behavior by linking Bcl2 to oxidative phosphorylation: estimation in rat hippocampus, amygdala, and prefrontal cortex, *J Mol Neurosci.* 2015 Feb;55(2):492-9.
56. Fatahi Z, Zeighamy Alamdary S, Khodaghohi F, Shahamati SZ, Razavi Y, Haghparast A., Effect of physical stress on the alteration of mesolimbic system apoptotic factors in conditioned place preference paradigm, *Pharmacol Biochem Behav.* 2014 Sep;124:231-7.

57. Ghadiri T, Sharifzadeh M, Khodagholi F, Modarres Mousavi SM, Hassanzadeh G, Zarrindast MR, Gorji A., A novel traumatic brain injury model for induction of mild brain injury in rats, *J Neurosci Methods*. 2014 Aug 15;233:18-27.
58. Sefidbakht Y, Moosavi-Movahedi AA, Hosseinkhani S, Khodagholi F, Torkzadeh-Mahani M, Foolad F, Faraji-Dana R., Effects of 940 MHz EMF on bioluminescence and oxidative response of stable luciferase producing HEK cells, *Photochem Photobiol Sci*. 2014 Jul;13(7):1082-92.
59. Rouhani M, Goliaei B, Khodagholi F, Nikoofar A., Lithium increases radiosensitivity by abrogating DNA repair in breast cancer spheroid culture, *Arch Iran Med*. 2014 May;17(5):352-60.
60. Alani B, Salehi R, Sadeghi P, Khodagholi F, Digaleh H, Jabbarzadeh-Tabrizi S, Zare M, Korbekandi H., Silencing of Hsp70 intensifies 6-OHDA-induced apoptosis and Hsp90 upregulation in PC12 cells, *J Mol Neurosci*. 2015 Jan;55(1):174-83.
61. Kachooei E, Moosavi-Movahedi AA, Khodagholi F, Mozaffarian F, Sadeghi P, Hadi-Alijanvand H, Ghasemi A, Saboury AA, Farhadi M, Sheibani N., Inhibition study on insulin fibrillation and cytotoxicity by paclitaxel, *J Biochem*. 2014 Jun;155(6):361-73.
62. Aliaghaei, A., Khodagholi, F., Ahmadiani, A., Conditioned Media of Choroid Plexus Epithelial Cells Induces Nrf2-Activated Phase II Antioxidant Response Proteins and Suppresses Oxidative Stress-Induced Apoptosis in PC12 Cells. *J Mol Neurosci* 2014 Aug;53(4):617-25.
63. Rouhani M, Goliaei B, Khodagholi F, Nikoofar A., Antimanic drug sensitizes breast cancer cell line to ionizing radiation. *General Physiology and Biophysics*. 2014,33(2):235-42.
64. Ashabi G, Khodagholi F, Khalaj L, Goudarzvand M, Nasiri M. Activation of AMP-activated protein kinase by metformin protects against global cerebral ischemia in male rats: Interference of AMPK/PGC-1 α pathway. *Metab Brain Dis*. 2014 . Mar;29(1):47-58.
65. Haghparast, A., Fatahi, Z., Alamdary, S.Z., Khodagholi, F., Changes in apoptotic factors in hypothalamus and hippocampus after acute and subchronic stress induction during conditioned place preference paradigm. *Excli Journals* 2013;12:1001-1016.
66. Ansari, N., Khodagholi, F., Natural products as promising drug candidates for the treatment of Alzheimer's disease: molecular mechanism aspect. *Curr Neuropharmacol*. 2013 Jul;11(4):414-29.
67. Haghparast, A., Fatahi, Z., Alamdary, S.Z., Reisi, Z., Khodagholi, F., Changes in the Levels of p-ERK, p-CREB, and c-fos in Rat Mesocorticolimbic Dopaminergic System After Morphine-Induced Conditioned Place Preference: The Role of Acute and Subchronic Stress. *Cell Mol Neurobiol*. 2013 Dec 1.

68. Razavi, Y., Alamdary, S.Z., Katebi, S.N., Khodaghali, F., Haghparast, A., Morphine-Induced Apoptosis in the Ventral Tegmental Area and Hippocampus After the Development but not Extinction of Reward-Related Behaviors in Rats. *Cell Mol Neurobiol.* 2013 Nov 27.
69. Sardari, M., Rezayof, A., Khodaghali, F., Zarrindast, M.R., Basolateral amygdala GABA-A receptors mediate stress-induced memory retrieval impairment in rats. *Int J Neuropsychopharmacol.* 2013 Nov 26:1-10.
70. Alani, B., Salehi, R., Sadeghi, P., Zare, M., Khodaghali, F., Arefian, E., Hakemi, M.G., Digaleh, H., Silencing of Hsp90 Chaperone Expression Protects Against 6-Hydroxydopamine Toxicity in PC12 Cells. *J Mol Neurosci.* 2013 Nov 15.
71. Shaerzadeh, F., Motamedi, F., Minai-Tehrani, D., Khodaghali, F., Monitoring of neuronal loss in the hippocampus of A β -injected rat: Autophagy, mitophagy, and mitochondrial biogenesis stand against apoptosis. *Neuromolecular Med.* 2013 Nov 8.
72. Katebi, S.N., Razavi, Y., Zeighamy Alamdary, S., Khodaghali, F., Haghparast, A., Morphine could increase apoptotic factors in the nucleus accumbens and prefrontal cortex of rat brain's reward circuitry. *Brain Res.* 2013 Dec 2;1540:1-8.
73. Kamalinia, G., Khodaghali, F., Atyabi, F., Amini, M., Shaerzadeh, F., Sharifzadeh, M., Dinarvand, R., Enhanced brain delivery of deferasirox-lactoferrin conjugates for iron chelation therapy in neurodegenerative disorders: in vitro and in vivo studies. *Mol Pharm.* 2013 Dec 2;10(12):4418-31.
74. Foolad, F., Khodaghali, F., Dietary supplementation with *Salvia sahendica* attenuates acetylcholinesterase activity and increases mitochondrial transcription factor A and antioxidant proteins in the hippocampus of amyloid beta-injected rats. *J Pharm Pharmacol.* 2013 Oct;65(10):1555-62.
75. Alamdary, S.Z., H. Digaleh, and F. Khodaghali, Dual Contradictory Effect of H-89 on Neuronal Retraction, Death and Inflammation in Differentiated PC12 Cells Subjected to Oxidative Stress. *J Mol Neurosci.* 2013 Nov;51(3):1030-7.
76. Khalaj, L., Nejad, S.C., Mohammadi, M., Sarraf Zadeh, S., Pour, M.H., Ashabi, G., Khodaghali, F., Ahmadiani, A., Assessing competence of broccoli consumption on inflammatory and antioxidant pathways in restraint-induced models: estimation in rat hippocampus and prefrontal cortex. *Biomed Res Int.* 2013: p. 590379.
77. Khalaj, L., Chavoshi Nejad, S., Mohammadi, M., Sarraf Zadeh, S., Hossein Pour, M., Ahmadiani, A., Khodaghali, F., Ashabi, G., Zeighamy Alamdary, S., Samami S., Gemfibrozil pretreatment proved protection against acute restraint stress-induced changes in the male rats' hippocampus. *Brain Res.* 1527: p. 117-30.

78. Khodagholi F., et al., Involvement of molecular chaperones and the transcription factor Nrf2 in neuroprotection mediated by para-substituted-4,5-diaryl-3-thiomethyl-1,2,4-triazines. *Epub* 2012 Jan 4. 17(4):409-22.
79. Ansari, N., Hadi-Alijavand, H., Sabbaghian, M., Kiaei, M., Khodagholi, F., Interaction of 2-APB, dantrolene, and TDMT with IP3R and RyR modulates ER stress-induced programmed cell death I and II in neuron-like PC12 cells: an experimental and computational investigation. *J Biomol Struct Dyn*. 2013 Jul 8.
80. Digaleh, H., M. Kiaei, and F. Khodagholi, Nrf2 and Nrf1 signaling and ER stress crosstalk: implication for proteasomal degradation and autophagy. *Cell Mol Life Sci*. 2013 Dec; 70(24): 4681-94.
81. Riahi, E., F. Khodagholi, and A. Haghparast, Role of dorsal hippocampal orexin-1 receptors in associating morphine reward with contextual stimuli. *Behav Pharmacol*. 24(4): p. 237-48.
82. Ashabi, G., et al., Time course study of A β formation and neurite outgrowth disruption in differentiated human neuroblastoma cells exposed to H₂O₂: Protective role of autophagy. *Toxicol In Vitro*. 27(6): p. 1780-8.
83. Sarvestani, N.N., et al., Involvement of p-CREB and phase II detoxifying enzyme system in neuroprotection mediated by the flavonoid calycopterin isolated from *Dracocephalum kotschy*. *Phytomedicine*. 20(10): p. 939-46.
84. Fariba Khodagholi, Ghorbangol Ashabi, Dietary supplementation with *Salvia Sahendica* attenuates memory deficits, modulates CREB and its down-stream molecules and decreases apoptosis in amyloid beta-injected rats. *Behav Brain Res*. 2013 Mar 15; 241: 62-9.
85. Shahnaz Babaei Abraki, Leila Khalaj, Fatemeh Shaerzadeh, Fariba Khodagholi, Simultaneous Inhibition of COX-2 and Activation of PPAR- γ Resulted in the Same Level and Pattern of Neuroprotection as They were Targeted Separately. *J Mol Neurosci*. 2013 Jan; 49(1): 116-29.
86. Gholamipour-Badie H, Naderi N, Khodagholi F, Shaerzadeh F, Motamedi F. L-type calcium channel blockade alleviates molecular and reversal spatial learning and memory alterations induced by entorhinal amyloid pathology in rats. *Behav Brain Res*. 2012 Sep 29. pii: S0166-4328(12)00631-6.
87. Niloufar Ansari, Fariba Khodagholi. Molecular mechanism aspect of ER stress in Alzheimer's disease: Current approaches and future strategies. *Curr Drug Targets*. 2013 Jan 1; 14(1): 114-22.
88. Ghorbangol Ashabi, Shabnam Zeighamy Alamdary, Mahmoudreza Ramin, Fariba Khodagholi. Reduction of hippocampal apoptosis by intracerebroventricular

89. administration of ERK and / or P38 inhibitors in A β rat model of Alzheimer,s disease: involvement of Nrf2 anf NF- κ B. *Basic Clin Pharmacol Toxicol.* 2012 Aug 23. [Epub ahead of print].
90. Ghazaleh Rafatian, Fariba Khodagholi, Mahdi Moridi Farimani, Shahnaz Babaei Abraki , Mossa Gardaneh. Increase of autophagy and attenuation of apoptosis by Salvigenin promote survival of SH-SY5Y cells following treatment with H₂O₂. *Mol Cell Biochem.* 2012 Dec; 371(1-2): 9-22.
91. Ehsan Kachooei, Ali Akbar Moosavi-Movahedi, Fariba Khodagholi, Hassan Ramshini, Fatemeh Shaerzadeh, Nader Sheibani. Oligomeric Forms of Insulin Amyloid Aggregation Disrupt Outgrowth and Complexity of Neuron-Like PC12 Cells. *Plos One.* 2012 Jul; 7(7): e41344.
92. Yenki P, Khodagholi F, Shaerzadeh F. Inhibition of Phosphorylation of JNK Suppresses A β -Induced ER Stress and Upregulates Prosurvival Mitochondrial Proteins in Rat Hippocampus. *J Mol Neuro.* 2013 Feb; 49(2): 262-9.
93. Alamdary SZ, Khodagholi F, Shaerzadeh F, Ansari N, Sonboli A, Tusi SK. *S. choleroleuca*, *S. mirzayanii* and *S. santolinifolia* Protect PC12 cells from H₂O₂-induced apoptosis by interfering intrinsic pathway. *Cytotechnology.* 2012 Aug; 64(4): 403-19.
94. Fariba Khodagholi , Solaleh Khoramian Tusi , Shabnam Zeighamy Alamdary , Mohsen Amini , Niloufar Ansari. Thiomethyl-5,6-(dimethoxyphenyl)-1,2,4-triazine improves neurite outgrowth and modulates MAPK phosphorylation and HSPs expression in H₂O₂ exposed PC12 cells. *Toxicology in Vitro.* 2012 Sep; 26(6): 907-14.
95. Khodagholi. F, Ansari. N, Amini. M, Khoramian Tusi.S, Involvement of molecular chaperones and the transcription factor Nrf2 in neuroprotection mediated by para-substituted-4, 5-diaryl 1-3- thiomethyl 1,,2,4-triazines. *Cell stress and chaperones.* 2012; 17(4):409-22.
96. Nima naderi, Mohsen Majidi, Zahra mousavi, Solaleh khoramian tusi, Zahra mansouri, Fariba khodagholi. The intraction between intrathecal administration of low doses of palmitoylethanolamide and AM251 in formalin- induced pain related behavior and spinal cord IL1- β expression in rats. *neurochem Res.* 2012; 37(4):778-85.
97. Ashabi G, Ramin M, Azizi P, Taslimi Z, Alamdary SZ, Haghparast A, Ansari N, Motamedi F, Khodagholi F. ERK and p38 inhibitors attenuate memory deficits and increase CREB phosphorylation and PGC-1 α levels in A β -injected rats. *Behav Brain Res.* 2012; 15;232(1):165-73.
98. Moridi Farimani M, Sarvestani NN, Ansari N, Khodagholi, F. Calycopterin Promotes Survival and Outgrowth of Neuron-Like PC12 Cells by Attenuation of Oxidative- and ER-

99. Stress-Induced Apoptosis along with Inflammatory Response. *Chem Res Toxicol.* 2012; 19;24(12):2280-92.
100. Eftekharzadeh B, Ramin M, Khodagholi F, Moradi S, Tabrizian K, Sharif R, Azami K, Beyer C, Sharifzadeh M. Inhibition of PKA attenuates memory deficits induced by β -amyloid (1-42), and decreases oxidative stress and NF- κ B transcription factors. *Behav Brain Res.* 2012; 1:301-308.
101. Shaerzadeh F, Alamdary SZ, Esmaeili MA, Sarvestani NN, Khodagholi F. Neuroprotective Effect of *Salvia sahendica* is Mediated by Restoration of Mitochondrial Function and Inhibition of Endoplasmic Reticulum Stress. *Neurochem Res.* 2011; 36: 2216-2226.
102. Maghsoudi AH, Khodagholi F, Hadi-Alijanvand H, Esfandiarei M, Sabbaghian M, Zakeri Z, Shaerzadeh F, Abtahi S, Maghsoudi N. Homology modeling, docking, molecular dynamics simulation, and structural analyses of coxsakievirus B3 2A protease: An enzyme involved in the pathogenesis of inflammatory myocarditis. *Int J Bio Macromol.* 2011; 1;49(4):487-92.
103. Asadi S, Khodagholi F, Esmaeili MA, Tusi S K, Ansari N, Shaerzadeh F, Sonboli A, Ghahremanzamaneh M. Chemical composition analysis, antioxidant, antiglycating activities and neuroprotective effects of *S. choleroleuca*, *S. mirzayanii* and *S. santolinifolia* from Iran. *Am J Chin Med.* 2011; 39: 615-38.
104. Tusi SK, Khalaj L, Ashabi G, Kiaei M, Khodagholi F. Alginate oligosaccharide protects against endoplasmic reticulum- and mitochondrial-mediated apoptotic cell death and oxidative stress. 2011; *Biomaterials*; 32(23):5438-58.
105. Khodagholi F, Tusi SK. Stabilization of Nrf2 by tBHQ prevents LPS-induced apoptosis in differentiated PC12 cells. *Mol Cell Biochem.* 2011; 354(1-2):97-112.
106. Shaerzadeh F, Ahmadiani A, Esmaeili MA, Ansari N, Asadi S, Tusi SK, Sonboli A, Ghahremanzamaneh M, Khodagholi F. Antioxidant and antiglycating activities of *Salvia sahendica* and its protective effect against oxidative stress in neuron-like PC12 cells. *J Nat Med.* 2011; 65(3-4):455-65.
107. Ansari N, Khodagholi F, Amini M. 2-Ethoxy-4,5-diphenyl-1,3-oxazine-6-one activates the Nrf2/HO-1 axis and protects against oxidative stress-induced neuronal death. *Eur J Pharmacol.* 2011; 658: 84-90.
108. Joodi G, Ansari N, Khodagholi F. Chitoooligosaccharide-mediated neuroprotection is associated with modulation of Hsps expression and reduction of MAPK phosphorylation. *Int J Biol Macromol.* 2011; 1;48(5):726-35.

109. Ansari N, Khodaghali F, Amini M, Shaerzadeh F. Attenuation of LPS- induced apoptosis in NGF-differentiated PC12 cells via NF- κ B pathway and regulation of cellular redox status by an oxazine derivative. *Biochimie*. 2011; 93: 899-908.
110. Haghparast A, Taslimi Z, Ramin M, Azizi P, Khodaghali F, Hassanpour-Ezatti M. Changes in phosphorylation of CREB, ERK, and c-fos induction in rat ventral tegmental area, hippocampus and prefrontal cortex after conditioned place preference induced by chemical stimulation of lateral hypothalamus. *Behav Brain Res*. 2011; 20;220(1):112-8.
111. Nouhi F, Tusi SK, Abdi A, Khodaghali F. Dietary Supplementation with tBHQ, an Nrf2 Stabilizer Molecule, Confers Neuroprotection Against Apoptosis in Amyloid β -Injected Rat. *Neurochem Res*. 2011; 36(5):870-8.
112. Khalaj L, Peirovi H, Khodaghali F, Abdi A, Dargahi L, Ahmadiani A. Acute 17 β -estradiol pretreatment protects against abdominal aortic occlusion induced spinal cord ischemic- reperfusion injury. *Neurochem. Res*. 2011; 36:268-80.
113. Ramin M, Azizi P, Motamedi F, Haghparast A, Khodaghali F. Inhibition of JNK phosphorylation reverses memory deficit induced by β -amyloid (1-42) associated with decrease of apoptotic factors. *Behav Brain Res*. 2011; 217:424-31.
114. Ansari N, Khodaghali F, Ramin MR, Amini M, Irannejad H, Dargahi L, Amirabad AD. Inhibition of LPS-induced apoptosis in differentiated-PC12 cells by new triazine derivatives through NF- κ B-mediated suppression of COX-2. *Neurochem Int*. 2010; 57:958-68.
115. Khodaghali F, Farahmand S, Tusi SK. Designing a highly efficient chemical chaperone system using chitosan-coated alginate. *Protein J*. 2010; 29:343-9.
116. Irannejad H, Amini M, Khodaghali F, Ansari N, Tusi SK, Sharifzadeh M, Shafiee A. Synthesis and in vitro evaluation of novel 1,2,4-triazine derivatives as neuroprotective agents. *Bioorg Med Chem*. 2010; 18:4224-30.
117. Tusi SK, Ansari N, Amini M, Amirabad AD, Shafiee A, Khodaghali F. Attenuation of NF-kappaB and activation of Nrf2 signaling by 1,2,4-triazine derivatives, protects neuron-like PC12 cells against apoptosis. *Apoptosis*. 2010; 15:738-51.
118. Asadi S, Ahmadiani A, Esmaili MA, Sonboli A, Ansari N, Khodaghali F. In vitro antioxidant activities and an investigation of neuroprotection by six *Salvia* species from Iran: A comparative study. *Food Chem Toxicol*. 2010; 48:1341-9.
119. Eftekharzadeh B, Hamedi J, Mohammadipanah F, Khodaghali F, Maghsoudi N, Klenk HP. Inhibition of oxidative stress-induced amyloid beta formation in NT2 neurons by culture filtrate of a strain of *Streptomyces antibioticus*. *Appl Microbiol Biotechnol*. 2010; 86:1805-11.

120. Maghsoudi N, Tafreshi NK, Khodaghali F, Zakeri Z, Esfandiarei M, Hadi-Alijanvand H, Sabbaghian M, Maghsoudi AH, Sajadi M, Zohri M, Moosavi M, Zeinoddini M. Targeting enteroviral 2A protease by a 16-mer synthetic peptide: Inhibition of 2A(pro)-induced apoptosis in a stable Tet-on HeLa cell line. *Virology*. 2010; 399:39-45.
121. Eftekhazadeh B, Maghsoudi N, Khodaghali F. Stabilization of transcription factor Nrf2 by tBHQ prevents oxidative stress-induced amyloid beta formation in NT2N neurons. *Biochimie*. 2010; 2:245-53.
122. Eftekhazadeh B, Khodaghali F, Abdi A, Maghsoudi N, Alginate protects NT2 neurons against H₂O₂-induced neurotoxicity. *Carbohydrate Polymers* 2010; 79:1063-1072.
123. Khodaghali F, Eftekhazadeh B, Maghsoudi N, Rezaei PF. Chitosan prevents oxidative stress-induced amyloid beta formation and cytotoxicity in NT2 neurons: involvement of transcription factors Nrf2 and NF-kappaB. *Mol Cell Biochem*. 2009; 337:39-51.
124. Rezaii N, Khodaghali F. Evaluation of chaperone-like activity of alginate: microcapsule and water-soluble forms. *Protein J*. 2009; 28:124-30.
125. Maghsoudi N, Khodaghali F, Sadjadi M, Zeinodini M, Sabbaghian M. Purification and partial characterization of coxsackievirus B3 2A protease expressed in *Escherichia coli*. *Int J Biol Macromol*. 2008; 43:238-44.
126. Khodaghali F, Eftekhazadeh B, Yazdanparast R. A new artificial chaperone for protein refolding: sequential use of detergent and alginate. *Protein J*. 2008; 27:123-9.
127. Yazdanparast R, Khodaghali F, Souri E. Alkaline phosphatase refolding assisted by sequential use of oppositely charged detergents: a new artificial chaperone system. *Int J Biol Macromol*. 2008; 42:195-202.
128. Khodaghali F, Yazdanparast R, Sadeghirizi A. The glycoposphatidylinositol anchor oppositely affects unfolding and refolding of alkaline phosphatase. *J Biomol Struct Dyn*. 2007; 25:189-94.
129. Khodaghali F, Yazdanparast R. Designing a highly efficient refolding system for alkaline phosphatase using combination of cyclodextrin and Mg²⁺ ion. *Protein J*. 2008; 27:1-6.
130. Khodaghali F, Yazdanparast R. Cooperative effects of artificial chaperone and Mg²⁺ ions on alkaline phosphatase refolding. *Biochem. Eng. J.*, 2007; 36:123-130.
131. Khodaghali F, Eftekhazadeh B, Yazdanparast R. Comparative evaluation of alpha- amylase refolding through two different artificial chaperone systems. *Protein J*. 2007; 26:293-301.
132. Sattarahmady N, Khodaghali F, Moosavi-Movahedi AA, Heli H, Hakimelahi GH. Alginate as an antiglycating agent for human serum albumin. *Int J Biol Macromol*. 2007; 41:180-4.
133. Yazdanparast R, Esmaeili MA, Khodaghali F. Control of aggregation in protein refolding: cooperative effects of artificial chaperone and cold temperature. *Int J Biol Macromol*. 2007; 40:126-33.

134. Yazdanparast R, Khodagholi F. Kinetic aspects of alkaline phosphatase refolding in the presence of alpha-cyclodextrin. Arch Biochem Biophys. 2006; 446:11-9.
135. Khodagholi F, Yazdanparast R. Artificial chaperone-assisted refolding of GuHCl- denatured alpha-amylase at low temperature: refolding versus aggregation. Protein J. 2005; 24:303-13.
136. Yazdanparast R, Khodagholi F, Khodarahmi R. Artificial chaperone-assisted refolding of chemically denatured alpha-amylase. Int J Biol Macromol. 2005; 35:257-63.
137. Hamed J, Khodagholi F, Hassani-Nasab A. Increased erythromycin production by alginate as a medium ingredient or immobilization support in cultures of *Saccharopolyspora erythraea*. Biotechnol Lett. 2005; 27:661-4.

National publications:

۱. جواد حامدی، فریبا خداقلی، محمدعلی آموزگار. کارایی تیمارهای پرتو فرابنفش و اتیدیوم برماید در افزایش مقاومت به اریترومایسین در جهش یافتگان *Saccharopolyspora erythraea*. مجله زیست شناسی ایران، ۱۳۸۱، شماره ۴ و ۳، صفحه ۱۷-۸.
۲. لیلا خلج، حبیب اله پیروی، فریبا خداقلی، آزاده عبدی، لیلا درگاهی، فاطمه محقق، ابوالحسن احمدیانی. محافظت نخاع در مقابل آسیب ایسکمی - ری پرفیوژن توسط تجویز حاد استرادیول در خرگوشهای نر. مجله فیزیولوژی و فارماکولوژی، ۱۳۸۸، شماره ۱۴، صفحه ۱۰-۱.
3. deoxy- Δ 12,14-prostaglandin J2 protects PC12 cells from LPS-induced cell death through Nrf2 pathway in PPAR- γ dependent manner. Shahnaz Babaei Abraki, Parnian Eslami, Fariba Khodagholi. Basic and Clinical Neuroscience 2012.
4. Modulation of H₂O₂-induced neurite outgrowth impairment and apoptosis in PC12 cells by a 1,2,4-triazine derivative. Solaleh Khoramian Tusi, Shahnaz Babaei Abraki, Mohsen Amini, Fariba Khodagholi. Basic and Clinical Neuroscience 2012.

Research interests:

- Drug design and signal transduction pathways
- Production of recombinant proteins
- Neuroeconomy and emotion