

Curriculum Vitae

Name: Maliheh soodi

Date of birth: 1974

Nationality: Iranian

CONTACT INFORMATION

Department of Toxicology

Faculty of medical sciences

Tarbiat Modarres University

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ACADEMIC POSITIONS

Assistant Professor of Pharmacology & Toxicology, Tarbiat modares University, Faculty of medical sciences (*since June,2009*)

Assistant Professor of Pharmacology & Toxicology, Food and Drug laboratories research center, Ministry of Health,*(from November 2006 to June 2009)*

EDUCATIONS

Tehran University of Medical Sciences, Faculty of Pharmacy, PhD
(Toxicology/Pharmacology), (2000-2005)

Tehran University of Medical Sciences, Faculty of Pharmacy, PharmD, (1993-1999)

High school certificate: (1992)

Thesis

Pharm.D. Thesis: Evaluation of fennel essential oil effects on uterine contraction and primary dysmenorrhea, Pharmacological ,Toxicological and Clinical trial studies.

Supervisors: Seyed Nasser Ostad, Mohammad Sharifzadeh and Nahid Khorshidi

Advisor: Hassan Marzban

Ph.D Thesis: Evaluation of COX-2 expression in hippocampus of lead induced memory deficit rats in Morris water Maze model.

Supervisors: Mohammad Sharifzadeh ,Nasser naghdi and Seyed Nasser Ostad

Advisor: Mohammad Abdollahi

WORKSHOPS

Lecture and Training:

Workshop of Behavioral and Molecular methods in neuroscience, *Tehran University of Medical Sciences,*

Analysis of Pesticides residue in food, 10th *Iranian congress of Toxicology and Poisoning, Tehran, Iran, May, 18-20, 2009*

Analysis of Aspartam with HPLC in Drinks. *Food and Drugs laboratories research center,*

Participation:

1. Sample preparation and analysis of aflatoxines
2. Design of experiment in pharmaceutical sciences
3. Workshop on safety assessment and quality control of GMO products
4. Food safety risk analysis
5. Basics, structure, documentation of food safety management systems according to DIN EN ISO 22000:2005
6. Chemometric Educational course,
7. 7-Educational course of Calibration of laboratories instruments
8. Analysis of vitamin D3 in dried milk and infant food
9. Behavioral methods in neuroscience.
10. Neural stem cell.

TEACHING

Pharmacology , for M.Sc student of Toxicology

General Toxicology, for M.Sc student of Toxicology

Clinical toxicology and poisoning, for M.Sc student of Toxicology,

Analytical toxicology, for M.Sc student of Toxicology

RESEARCH AREA

Neurotoxicology

Neurodegenerative diseases, especially Alzheimer

Protective effects of medicinal plants in neurotoxicology

Neurobehavioral toxicology , especially toxicant induced memory deficit, cellular and molecular mechanism investigation

Oxidative stress and Apoptosis

Supervisor

- 1- Development a HPLC method for simultaneous determination of Azinphose methyl, Diazinon, Phosalone and Chlorpyrifos residues in fruit.(Analytical chemistry, M.Sc. Thesis, Azad university)
- 2- Evaluation of Melissa officinalis extracts on scopolamine induced amnesia in rat (Pharm D. Thesis, Azad university)
- 3- Protective effect of Melissa officinalis extract against beta-amyloid induced neurotoxicity and oxidative stress.(Toxicology M.Sc. Thesis, Tarbiat modares university)
- 4- Protective effect of methanolic extracts of some salvia and satureja species against β -amyloid peptide induced toxicity in PC12 cell.(Toxicology M.Sc. Thesis, Tarbiat modares university)
- 5- Evaluation of *1-benzyl-4-((6-alkoxy-3-oxobenzofuran-2(3H)-ylidene) methyl) pyridinium* derivatives on beta amyloid aggregation and toxicity.(Toxicology M.Sc. Thesis, Tarbiat modares university)
- 6- Protective effect of one medicinal plant extract from *Lamiaceae* family against amyloid beta-peptide-induced toxicity on rat hippocampus and cholinergic system.(Toxicology M.Sc. Thesis, Tarbiat modares university)

- 7- Developmental neurotoxicity assessment of lead acetate using differentiation of Adipse tissue-derived mesenchymal stem cell to neuron.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 8- Neurodevelopmental neurotoxicity assessment of Lead acetate using differentiation of Bone marrow-derived mesenchymal stem cells to Cholinergic neuron.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 9- Developmental neurotoxicity assessment of chlorpyrifose using differentiation of Adipose tissue- derived mesenchymal stem cells to neuron.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 10- Assessment of hexavalent chromium (Cr VI) induce neurotoxicity and oxidative stress in cultured Cerebellar Granule Neurons (CGNs) .(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 11- The assessment of chlorpyrifos neurotoxicity and its interaction with glutamate induced toxicity in cultured cerebellar granule cells) .(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 12- Determination of 5 - hydroxymethyl furfural in date juice and comparison of its amount in samples produced by the traditional and industrial manufacturing methods.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 13- Evaluation of short term and long term effect of single and repeated dose administration of scopolamine on memory impairment oxidative stress and acetylcholinesterase activity in rat hippocampus.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 14- Assessment of correlation between paraoxonase activity / aryl esterase activity with oxidative stress and AChE in the blood samples of pesticides factory workers.(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 15- Study of oxidative stress and PON2 gene expression after subchronic administration of chlorpyrifos(CPF) in the male rat brain tissue and assess the protective role of quercetin. .(Toxicology M.Sc. Thesis,Tarbiat modares university)
- 16- Protective effect of Sanguisorba minor, ferulago angulate extract against beta-amyloid peptide (25-35) induced cytotoxicity and oxidative stress in cultured cerebellar granule Neurons.(Toxicology M.Sc. Thesis,Tarbiat modares university)

17- protective effect of cerasus microcarpa and amygdalus scoparia against β -amyloid induced toxicity and oxidative stress in cultured Cerebellar Granule Neurons.(Toxicology M.Sc. Thesis,Tarbiat modares university)

Advisor

Assessment of Interaction effect of Zinc and nitric oxide synthase inhibitor on memory retention and expression of ChAT and COX-2 in hippocampus and medial septal area of rat in Morris water maze model., Toxicology Ph.D Thesis, Tehran University of Medical Sciences

ABSTRACTS in congresses

Oral presentation

Simultaneous determination of four common organophosphate pesticide residues in fruits by HPLC, Soodi M, Garshasbi A, Eskandari S., 10th Iranian congress of Toxicology and Poisoning, Tehran, Iran, May, 18-20, 2009

Poster presentation:

- 1- Development of a HPLC method for determination of Azinphos methyl residue in fruits, Soodi M, Garshasbi A, Eskandari S ,11th Iranian Pharmaceutical Sciences conference, Kerman, Iran, August, 2008
- 2- Protective effect of Melissa officinalis extract against beta-amyloid induced neurotoxicity and oxidative stress, Sepand M, Soodi M, Hajimehdipoor H, 1st IBRO- Middle East Neuroscience Conference, Al Ain, Emarate, Feb, 2011

- 3- Protective effect of some *Lamiaceae* species against β -amyloid induced toxicity in PC12 cell. Balali P, Soodi M, Saeidnia S., 11th Iranian congress of Toxicology and Poisoning, mashhad, Iran, Sep. 2011
- 4- Lemon balm Attenuates Scopolamine-Induced Memory Impairments, Soodi M., Naghdi N., Hajimehdipour H., 11th Iranian congress of Toxicology and Poisoning, Mashhad, Iran, Sep. 2011.
- 5- Application of stem cells in developmental neurotoxicity testing., Qasemian M. and Soodi M., First annual conference on Neural stem cells, October, 2011
- 6- Stem cell in neurotoxicity assessment., Jafarzadeh E and Soodi M., First annual conference on Neural stem cells, October, 2011
- 7- Evaluation of neuroprotective effect of 1-benzyl-4-((6-alkoxy-3-oxobenzofuran-2(3H)-ylidene) methyl) pyridinium derivatives on beta amyloid ($A\beta$) induced toxicity in PC12 cells., Golejy Z., Soodi M., Nadri N., 13th Iranian pharmaceutical sciences congress, september. 2012
- 8- *Satureja bachtiarica* methanolic extract ameliorate beta-amyloid induced memory impairment., Soodi M., Moradi S., Sharifzadeh M., Saeidnia S., 13th Iranian pharmaceutical sciences congress, september. 2012
- 9- Investigation of the scopolamine effect on acetylcholinesterase activity., Sahraei E, Soodi M., Jafarzadeh E., Karimivaghef Z., 13th Iranian pharmaceutical sciences congress, september. 2012
- 10- Protective effect of some medicinal plants from Iran against β -amyloid induced toxicity and protein aggregation Agazadeh E, Soodi M, Sharififar F, 12th Iranian congress of Toxicology, May 2013
- 11- Toxic effects of lead on the differentiation of Bone marrow-derived mesenchymal stem cells to cholinergic like neurons Jafarzadeh E, Soodi M, Tarihi T, Qasemian M, Zarei M, 12th Iranian congress of Toxicology, May 2013
- 12- The effect of chlorpyrifos on adipose-derived mesenchymal stem cells during different stages of neuronal cell differentiation Zarei MH, Soodi M, Fakhr-Taha M, jafarzade E, Qasemian- Lemraski M, 12th Iranian congress of Toxicology, May 2013

- 13- Potassium dichromate induced Cytotoxicity in PC12 cells Dashti A, Soodi M, Amani N, 12th Iranian congress of Toxicology, May 2013
- 14- Toxicity of lead exposure during different stage of neural cell differentiation of adipose-driven mesenchymal stem cells, Qasemian Lemraski M, Soodi M, Fakhr-e-Taha M, Zarei M, Jafarzadeh E, 12th Iranian congress of Toxicology, May 2013
- 15- Neurotoxicity of Chlorpyrifos and its interaction with glutamate toxicity in cultured cerebellar granule neurons (CGNs) Amani N, Soodi M, Dashti A, Basic and clinical neuroscience, December, 2013
- 16- Assessment of Hexavalent chrome toxicity on immature and mature cultured cerebellar granule neurons (CGN) Dashti A, Soodi M, Amani N, Basic and clinical
- 17- Reversible effect of single dose administration of scopolamine on memory impairment, oxidative stress and acetylcholinesterase activity in hippocampus. Rahimzadegan M, Soodi M, 13th Iranian congress of Toxicology, May, 2015
- 18- Time course study of scopolamine-induced memory impairment, oxidative stress and acetylcholinesterase activity in hippocampus following repeated doses., Rahimzadegan M, Soodi M, 13th Iranian congress of Toxicology, May, 2015
- 19- Neuroprotective activity of six medicinal plants from Iran against K⁺ Deprivation-Induced Apoptosis in cultured Primary Cerebellar Granule Neurons Soodi M Hajimehdipoor H Ataei N, 13th Iranian congress of Toxicology, May, 2015
- 20- Neuroprotective activity of seven medicinal plants from Iran against β -amyloid induced toxicity in PC12 cell., Ataei N, Soodi M Hajimehdipoor H Akbari S, 13th Iranian congress of Toxicology, May, 2015
- 21- Paraoxonase/arylesrerase activity after acute chlorpyrifos poisoning, Ghahramani S., Soodi S., Assadi A., 13th Iranian congress of Toxicology, May, 2015
- 22- Chlorpyrifos toxicity in primary cerebellar granule neurons culture: the role of NMDA, nicotinic and muscarinic receptors., Alimohamadi M., Soodi M., Hashemi SL 13th Iranian congress of Toxicology, May, 2015
- 23- Neuroprotective activity of six medicinal plants from Iran against β -amyloid induced toxicity in cultured Primary Cerebellar Granule Neurons. Akbari Sh*, Soodi M¹, Hajimehdipoor² H, Ataei N. IPSC2015, Tehran, Iran

- 24- *Melissa officinalis* acidic fraction protect cultured cerebellar granule neurons against beta amyloid-induced Apoptosis and oxidative stress. Dashti A, Soodi M, Hajimehdipoor M, Akbari S, Ataei N. IPSC2015, Tehran, Iran
- 25- Quercetin up regulates PON2 gene expression and ameliorate chlorpyrifos-induced oxidative stress in the rat brain. Ghahremani S, Soodi M, Atashi A. Eurotox 2016, Spain
- 26- *Protective effects of Quercetin against subacute chlorpyrifos-induced oxidative stress.* Ghahremani S, Soodi M, Asadi A. IPSC2015, Tehran, Iran

FULL PAPERS IN INTERNATIONAL JOURNAL

1. Ostad SN., Soodi M, Sharifzadeh M., Khorshidi N., Marzban H., The effect of fennel essential oil on uterine contraction as a model for dysmenorrhea, pharmacology and toxicology study. *J.Ethnopharm.* 2001, (76) : 299-304
2. Khorshidi N, Ostad SN, Mosadegh M, Soodi M., Clinical effects of fennel essential oil on primary dysmenorrhea. *I.J.P.R.* 2003, 89-93
3. Sharifzadeh M, Tavasoli M, Soodi M, Mohammadi-Eraghi S., Ghahremani M, Roghani A., Time course analysis of cyclooxygenase-2 suggests a role in spatial memory retrieval in rats. *Neuroscience Res.*, 2006, (54): 171-179
4. Sharifzadeh M, Aghsami M., Gholizadeh S., Soodi M., Khalaj S., Tabrizian K. and Roghani A., Protective effects of chronic lithium treatment against spatial memory retention deficits induced by the protein kinase AII inhibitor H-89 in male rats. *Pharmacology.* 2007;80(2-3):158-65.
5. Soodi M., Sharifzadeh M., Naghdi N., Ostad SN., Abdollahi M., and Roghani A., Systemic and developmental exposure to lead causes spatial memory deficits and a reduction in COX-2 immunoreactivity in the rat hippocampus. *J Neurosci Res.* 2007 Nov 1;85(14):3183-92.

6. Soodi M., Nagdi N., Sharifzadeh M., Ostad SN and Abdollahi M., Effect of lead (Pb) exposure in female pregnant rats and their offspring on spatial learning and memory in morris water maze. *Iranian journal of pharmaceutical research* 2008 , 7(1), pp. 43-51
7. Tabrizian K., Najafi S, Belaran M., Hosseini-Sharifabad A., Azami K., Hosseini A., Soodi M., Kazemi A., Kebriaeezadeh A and Sharifzadeh M., Effects of Selective iNOS Inhibitor on Spatial Memory in Recovered and Non-recovered Ketamine Induced-anesthesia in Wistar Rats. *Iranian Journal of Pharmaceutical Research* (2010), 9 (3): 313-320
8. Hosseini-Sharifabad, A. , Mohammadi-Eraghi, S. , Tabrizian, K. , Soodi, M. , Khorshidahmad, T., Naghdi, N. , Abdollahi, M. , Beyer, C. , Roghani, A. , Sharifzadeh, M., Effects of training in the Morris water maze on the spatial learning acquisition and VAcHT expression in male rats. *DARU, Journal of Pharmaceutical Sciences* 2011:19(2) 166-172
9. Soodi M, Garshasbi A, Eskandari S., Development a HPLC method for simultaneous determination of Azinphose methyl, Diazinon, Phosalone and Chlorpyrifos residues in fruit., *Journal of Pharmaceutical and Health Sciences* 2012;1(4), 79-87.
10. Balali P., Soodi M. , Saeidnia S. , Protective effects of some medicinal plants from Lamiaceae family against beta-amyloid induced toxicity in PC12 cell., *Tehran University Medical Journal, October 2012; 70,7: 402-409*
11. Sepand M, Soodi M, Soleimani M, Hajimehdipoor H. Protective Effects of Melissa officinalis Extract Against Beta-amyloid-induced Oxidative Stress in PC12 Cells. *JMP.* 2012; 2 (42) :74-85
12. Sepand M., Soodi M., Hajimehdipoor H., Soleimani M. and Sahraei E., Comparison of Neuroprotective Effects of Melissa officinalis Total Extract and Its Acidic and Non-Acidic Fractions against A β -Induced Toxicity., *Iranian Journal of Pharmaceutical Research* (2013), 12 (2): 415-423
13. Soodi M., Naghdi N., Hajimehdipoor H., Choopani S. and Sahraei E., Memory-improving activity of Melissa officinalis extract in naïve and scopolamine-treated rats., *Research in Pharmaceutical Sciences*, April 2014; 9(2): 107-114

14. Mandegary A, Soodi M, Sharififar F, Ahmadi S. Anticholinesterase, antioxidant, and neuroprotective effects of *Tripleurospermum disciforme* and *Dracocephalum multicaule*. *J Ayurveda Integr Med* 2014;5:162-6.
15. Dashti A., Soodi M., Amani A., Cr (VI) Induced Oxidative Stress and Toxicity in Cultured Cerebellar Granule Neurons at Different Stages of Development and Protective Effect of Rosmarinic Acid., *Environmental Toxicology*., In press
16. Qasemian Lemraski M1, Soodi M, Fakhr Taha M, Jafarzade E, Zarei MH. Study of Lead induced neurotoxicity in neural cells differentiated from adipose tissue -derived stem cells. *Toxicol Mech Methods*. 2014 Dec 15:1-21. [Epub ahead of print]
17. Ali Mandegary, Fariba Sharififar, Maliheh Soodi, Masumeh Zarei. ANTICHOLINESTERASE EFFECT OF SOYBEAN EXTRACT (GLYCINE MAX L.) IN THE BRAIN OF AMNESIC MICE AND ITS PROTECTIVE EFFECTS AGAINST BETA-AMYLOID INDUCED CYTOTOXICITY IN PC12 CELLS. *UJAHM* 2014, 02 (06): Page 61-65
18. Abolfazl Dashti; Maliheh Soodi; Nahid Amani. Evaluation of Cr (VI) induced neurotoxicity and oxidative stress in PC12 cells. *Modares journal of medical sciences: Pathobiology* 2015, 18 (2015-2016), No. 1, Pages: 55-65
19. Zarei MH, Soodi M, Fakhr Taha M, Qasemian Lemraski M, Jafarzade E,. Study of the chlorpyrifos neurotoxicity using neural differentiation of adipose tissue-derived stem cells *Environmental Toxicology*., 2016, 11, 1510-1519
20. Maliheh Soodi, Soodabeh Saeidnia , Mohammad Sharifzadeh, Homa Hajimehdipoor, Abolfazl Dashti, Mohammad reza Sepand, Shahla moradi *Satureja bachtiarica* ameliorate beta-amyloid induced memory impairment, oxidative stress and cholinergic deficit in animal model of Alzheimer's disease. *Metabolic brain disease* 2016;2:395-404
21. Chlorpyrifos toxicity in the mouse cultured cerebellar granule neurons at different stages of development: Additive effect on glutamate-induced excitotoxicity. *CELL JOURNAL*, 2016, 3:464-472
22. Mohammad Reza Sepand, Mohammad Hossein Ghahremani, Kamal Razavi-Azarkhiavi, Mehdi Aghsami, Jalil Rajabi, Hedieh Keshavarz-Bahaghighat and Maliheh Soodi. Ellagic acid confers protection against gentamicin-induced oxidative damage,

- mitochondrial dysfunction and apoptosis-related nephrotoxicity. *Journal of Pharmacy and Pharmacology*, 2016, 68: 1222-1232.
23. Jaber Zafari , Fatemeh Javani Jouni, Ali Ahmadvand , Parviz Abdolmaleki , Malihe Soodi , Rezvan Zendehtdel. Investigation of gene expressions in differentiated cell derived bone marrow stem cells during bone morphogenetic protein-4 treatments with Fourier transform infrared spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 173 (2017) 695–703
24. Soodi M, Dashti A, Hajimehdipour H, Akbari Sh, Ataei N. Melissa officinalis acidic fraction protects cultured cerebellar granule neurons against beta amyloid-induced apoptosis and oxidative stress. *Cell J*. 2017; 18(4): 556-564.
25. Kaveh Tabrizian & Kian Azami & Maryam Belaran & Maliheh Soodi & Khosrou Abdi & Sahar Fanoudi & Mehdi Sanati & Negar Mottaghi Dastjerdi & Mohammad Soltany rezaee-Rad & Mohammad Sharifzadeh Selective Inducible Nitric Oxide Synthase Inhibitor Reversed Zinc Chloride-Induced Spatial Memory Impairment via Increasing Cholinergic Marker Expression. *Biol Trace Elem Res* (2016) 173:443–451
26. Afrooz Jafarnia, Maliheh Soodi, Maryam Shekarchi. Determination and Comparison of Hydroxymethylfurfural in Industrial and Traditional Date Syrup Products. *Iranian Journal of Toxicology* 2016, 10: 11-16
27. Soodi M, Hajimehdipour H, Akbari S, Ataei N. Screening seven Iranian medicinal plants for protective effects against β -Amyloid-induced cytotoxicity in cultured cerebellar granule neurons. *Research Journal of Pharmacognosy (RJP)*. 2017 Apr 1; 4(2):15-22.

