

Mohsen Rezaei
Curriculum Vitae

Current:

Associate Professor
Head of the Department of Toxicology,
Faculty of Medical Sciences,
Tarbiat Modares University,
Tehran, Iran
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Past Appointments:

Academic rank: Assistant Professor
2006-2015
Toxicology and Pharmacology Department
Pharmacy School
JondiShapur University of Medical Sciences,
Golestan Blv, Ahvaz, Khouzestan, Iran
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School of Pharmacy's Deputy Dean for Education: 2009-2013

University's Continuing Medical Education Supervisor and Manager:
2007-2009

Education:

2000-2006: Ph.D. program, Department Of Toxicology and Pharmacology, School Of Pharmacy, Shaheed Beheshti University of Medical Sciences, Tehran, Iran.
Thesis: *Cellular and Molecular Mechanisms of Chronic Pain Induced Damage on Hepatocytes.*

Supervisor: Dr. A. Ahmadiani, Dr. J. Pourahmad, Dr. H.R. Rasekh

1993-2000: Pharm.D., School Of Pharmacy, Ahvaz University Of Medical Sciences, Ahvaz, Iran.

Dissertation: *The Effect of Oral Administration of L-tyrosine, Folic acid and Pyridoxine on Perphenazine Induced Catatonia in Rat.*

Supervisor: Dr. A. Arzi

Teaching activities:

1-Toxicology (Molecular, Cellular, Chemical Carcinogenicity, environmental ...)

2- Pharmacology

Publications and Abstracts:

Farshid Maleki, Mona Salimi, Reza Shirkoohi, **Mohsen Rezaei**, Mitotherapy in doxorubicin induced cardiotoxicity: A promising strategy to reduce the complications of treatment. **2022**, Life Sciences, Pages120701, DOI: 10.1016/j.lfs.2022.120701

Mersad Bagherpour Kalo, **Mohsen Rezaei**, In vitro toxic interaction of arsenic and hyperglycemia in mitochondria: an important implication of increased vulnerability in pre-diabetics. **2022**/4, Environmental Science and Pollution Research, Volume 29, Issue 19, Pages 28375-28385, DOI: 10.1007/s11356-022-18513-7

Somayeh Handali, **Mohsen Rezaei**, Arsenic and Weight Loss: at a Crossroad between Lipogenesis and Lipolysis. **2021**/8/5, Journal of Trace Elements in Medicine and Biology, Pages126836, Urban & Fischer

A Hosseinzadeh, S Mehrzadi, **M Rezaei**, M Badavi, A Nesari, M Goudarzi, Lovastatin attenuates glyoxal-induced toxicity on rat liver mitochondria, **2021**/6/24, Human & Experimental Toxicology, Pages 09603271211027939

Behnaz Shafie, Jalal Pourahmad, **Mohsen Rezaei**. N- acetylcysteine is more effective than ellagic acid in preventing acrolein induced dysfunction in mitochondria isolated from rat liver. **2021**. Journal of Food Biochemistry

Mohsen Rezaei, Lida Karimian, Bizhan Shafaghi, Maryam Noubarani, Maryam Salech, Mohammad Shafi Dehghani, Mohammad Reza

Eskandari, Jalal Pourahmad. Evaluation of Molecular and Cellular Alterations Induced by Neuropathic Pain in Rat Brain Glial cells. **2021** Journal Iranian Journal of Pharmaceutical Research Volume 20. Issue 1. Pages 359-370

Forouzan Khodaei, Sayed M Hosseini, Mahmoud Omid, Seyede F Hosseini, **Mohsen Rezaei**. Cytotoxicity of metformin against HT29 colon cancer cells contributes to mitochondrial Sirt3 upregulation. Journal of Biochemical and Molecular Toxicology, **2021**

Farideh Iravanpour, Leila Dargahi, **Mohsen Rezaei**, Masoud Haghani, Reza Heidari, Neda Valian, Abolhassan Ahmadiani. Intranasal insulin improves mitochondrial function and attenuates motor deficits in a rat 6-OHDA model of Parkinson's disease. **2021**. CNS Neuroscience & Therapeutics

Massood Valizade, Atefeh Raesi Vanani, **Mohsen Rezaei**, Laya Sadat Khorsandi, Leila Zeidooni, Masoud Mahdavinia. Mesobuthus eupeus venom induced injury in the colorectal carcinoma cell line (HT29) through altering the mitochondria membrane stability. **2020/6**. Journal Iranian Journal of Basic Medical Sciences. Volume 23, Issue 6

Synergy Effects of Metformin and Berberine on Glyoxal-induced Carbonyl Stress in Isolated Rat Liver Mitochondria. **Rezaei, Mohsen**; Kalantari, Heibatullah; Mehrzadi, Saeed; Goudarzi, Mehdi. Current Drug Therapy, Volume 15, Number 5, **2020**, pp. 493-502), DOI:10.2174/1574885515666200214122055

Sohrab Rahmani, **Mohsen Rezaei**, Toxicity of fluoride on isolated rat liver mitochondria. **2020**, Journal of Fluorine Chemistry, Volume 239

Forouzan Khodaei, Sayed M Hosseini, Mahmoud Omid, Seyede F Hosseini, **Mohsen Rezaei**, Cytotoxicity of metformin against HT29 colon cancer cells contributes to mitochondrial Sirt3 upregulation. **2020**, Journal of Biochemical and Molecular Toxicology

Shahla Kianamiri, Ali Dinari, Majid Sadeghizadeh, **Mohsen Rezaei**, Bahram Daraei, Noor El-Huda Bahsoun, Alireza Nomani, Mitochondria-Targeted Polyamidoamine Dendrimer–Curcumin Construct for Hepatocellular Cancer Treatment. **2020**, Molecular Pharmaceutics

Somayeh Handali, **Mohsen Rezaei**. Interlink between improved formulations, inhibitory concentrations and cell death mechanism

investigations of cytotoxic drugs: What really matters? Journal of Controlled Release. **2020**, 320: 404-411

Rashid Jahangirnejad, Mehdi Goudarzi, Heibatullah Kalantari, Hossein Najafzadeh, **Mohsen Rezaei**. Subcellular Organelle Toxicity Caused by Arsenic Nanoparticles in Isolated Rat Hepatocytes. **2020**. Int J Occup Environ Med. 11 (1):1614-41-52

Somayeh Handali, Eskandar Moghimipour, **Mohsen Rezaei**, Zahra Ramezani, Farid Abedin Dorkoosh. PHBV/PLGA nanoparticles for enhanced delivery of 5-fluorouracil as promising treatment of colon cancer. **2020**, Journal Pharmaceutical Development and Technology 25 (2): 206-218

Forouzan Khodaei, Marzieh Rashedinia, Reza Heidari, **Mohsen Rezaei**, Mohammad Javad Khoshnoud. Ellagic acid improves muscle dysfunction in cuprizone-induced demyelinated mice via mitochondrial Sirt3 regulation. Life Sciences. **2019**. 237(15):116954

Soheila Alboghobeish & Marzieh Pashmforosh & Leila Zeidoooni & Azin Samimi & **Mohsen Rezaei**, High fat diet deteriorates the memory impairment induced by arsenic in mice: a sub chronic in vivo study. **2019** Metabolic Brain Disease. Springer Nature. <https://doi.org/10.1007/s11011-019-00467-4>

Javadipour M, **Rezaei M**, Keshtzar E, Khodayar MJ. Metformin in contrast to berberine reversed arsenic induced oxidative stress in mitochondria from rat pancreas probably via Sirt3 dependent pathway. J. Biochem. Mol. Toxicol. **2019**;e22368. <https://doi.org/10.1002/jbt.22368>

Rasras S, Kalantari H, **Rezaei M**, Dehghani MA, Zeidoooni L, Alikarami K, Dehghani F, Alboghobeish S. Single-walled and multiwalled carbon nanotubes induce oxidative stress in isolated rat brain mitochondria. Toxicol Ind Health. **2019** Jul 4:748233719856983. doi: 10.1177/0748233719856983.

Ali Nesari, Mohammad Taghi Mansouri, Mohammad Javad Khodayar & **Mohsen Rezaei**, Preadministration of high-dose alpha-tocopherol improved memory impairment and mitochondrial dysfunction induced by proteasome inhibition in rat hippocampus. **2019**, NUTRITIONAL NEUROSCIENCE, DOI: 10.1080/1028415X.2019.1601888

Somayeh Handali, Eskandar Moghimipour, Maryam Kouchak,

Zahra Ramezani, Mohsen Amini, Kambiz Ahmadi Angali, Sadegh Saremy, Farid Abedin Dorkoosh, **Mohsen Rezaei**. New folate receptor targeted nano liposomes for delivery of 5-fluorouracil to cancer cells: Strong implication for enhanced potency and safety. *Life Sciences*, **2019**, 39-50.

Mohsen Rezaei, Elham Keshtzar, Mohammad Javad Khodayar, Mansoureh Javadipour. SirT3 regulates diabetogenic effects caused by arsenic: An implication for mitochondrial complex II modification. *Toxicol Lett.* **2019** Oct 29; 301: 24-33. doi: 10.1016/j.toxlet.2018.10.025.

Somayeh Handali, Eskandar Moghimipour, **Mohsen Rezaei**, Sadegh Saremy, Farid Abedin Dorkoosh, Co-delivery of 5-fluorouracil and oxaliplatin in novel poly (3-hydroxybutyrate-co-3-hydroxyvalerate acid)/poly (lactic-co-glycolic acid) nanoparticles for colon cancer therapy. *International journal of biological macromolecules*, Elsevier, **2019**, 1299-1311.

Handali S, Moghimipour E, **Rezaei M**, Saremy S, Dorkoosh FA. Co-delivery of 5-fluorouracil and oxaliplatin in novel poly (3-hydroxybutyrate-co-3-hydroxyvalerate acid)/poly(lactic-co-glycolic acid) nanoparticles for colon cancer therapy. *Int J Biol Macromol.* **2019** Sep 21. pii: S0141-8130(18)32388-2. doi: 10.1016/j.ijbiomac.2018.09.119.

S. Handali, E. Moghimipour, **M. Rezaei**, Z. Ramezani¹, M. Kouchak, M. Amini, Evaluation Of Cytotoxicity And Mechanism Of Apoptosis Of 5-fluorouracil Using Folic Acid Conjugated Liposomes For Targeted Delivery To Colon Cancer. *Controlled release society (CRS)*, **2018**, New York, USA (poster).

Moghimipour E, **Rezaei M**, Kouchak M, Ramezani Z, Amini M, Ahmadi Angali K, Saremy S, Abedin Dorkoosh F, Handali S. A mechanistic study of the effect of transferrin conjugation on cytotoxicity of targeted liposomes. *J Microencapsul.* **2018** Nov 16:1-11. doi: 10.1080/02652048.2018.1547325.

A Ahangarpour, S Alboghobeish, **Mohsen Rezaei**, Mohammad Javad Khodayar, Ali Akbar Oroojan and Marzieh Zainvand. Evaluation of Diabetogenic Mechanism of High Fat Diet in Combination with Arsenic Exposure in Male Mice. *Iranian Journal of Pharmaceutical Research* (**2018**), 17 (1): 164-183.

Somayeh Handali· Zahra Ramezani· Eskandar Moghimipour· **Mohsen Rezaei**· Farid Abedin Dorkoosh. A novel method for the simultaneous

determination of 5-fluorouracil and oxaliplatin in new biodegradable PHBV/PLGA nanoparticles. *Journal of the Iranian Chemical Society*. **2018** DOI: 10.1007/s13738-018-1538-1.

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Somayeh Handali, Eskandar Moghimipoura, **Mohsen Rezaei**. et al. A novel 5-Fluorouracil targeted delivery to colon cancer using folic acid conjugated liposomes. *Biomedicine & Pharmacotherapy* 108 (**2018**) 1259–1273

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Moghimipour E, **Rezaei M**, Ramezani Z, Kouchak M, Amini M, Angali KA, Dorkoosh FA, Handali S. Folic acid-modified liposomal drug delivery strategy for tumor targeting of 5-fluorouracil. *Eur J Pharm Sci*. **2018** Dec 13; 114:166-174. doi: 10.1016/j.ejps.2017.12.011.

Moghimipour E, **Rezaei M**, Ramezani Z, Kouchak M, Amini M, Angali KA, Dorkoosh FA, Handali S. Transferrin targeted liposomal 5-fluorouracil induced apoptosis via mitochondria signaling pathway in cancer cells. *Life Sci*. **2018**. pii: S0024-3205(17)30664-1. doi: 10.1016/j.lfs.2017.12.026.

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liver mitochondria. *Hum Exp Toxicol.* **2017** Jan 1:960327117715900. doi: 10.1177/0960327117715900.

Mohsen Rezaei, Mohammad Javad Khodayar, Enayatollah Seydi MSc, Alboghobeish Soheila, Isa Kazemzadeh Parsi. Acute, but not Chronic, Exposure to Arsenic Provokes Glucose Intolerance in Rats: Possible Roles for Oxidative Stress and the Adrenergic Pathway. *Canadian Journal of Diabetes.* **2017**: 10.1016/j.jcjd.2016.10.008

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Marzieh Jafari, **Mohsen Rezaei**, Heibatullah Kalantari, Maryam Tabarzad, and Bahram Daraei. Optimization of Aflatoxin B1 Aptasensing. *Journal of Toxicology.* (**2017**), Article ID 2461354, DOI: 10.1155/2017/2461354

Ahangarpour A, Oroojan AA, **Rezaei M**, Khodayar MJ, Alboghobeish S, Zeinvand M. Effects of butyric acid and arsenic on isolated pancreatic islets and liver mitochondria of male mouse. *Gastroenterol Hepatol Bed Bench.* **2017**; 10 (1):44-53.

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Ali Nazari, Javad Khodayar, Maryam Salech, **Mohsen Rezaei** et al. Serum Paraoxonase and Arylesterase Activity and Liver Tissue of Rats under Acute Hepatotoxicity Induced By Acetaminophen. *Der Pharmacia Lettre*, **2017**, 9 [6]: 205-217.

Mehrnoosh Moosavi, **Mohsen Rezaei**, Heibatullah Kalantari, Abdolazim Behfar & Golnaz Varnaseri (**2016**): l-carnitine protects rat hepatocytes from oxidative stress induced by T-2 toxin, *Drug and Chemical Toxicology*: <http://dx.doi.org/10.3109/01480545.2016.1141423>

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Negin Daneshgar; Mohsen Rezaei; Mehdi Goudarzi; Niloofar Babadi; and Mohammad Javad Khodayar. The Ameliorative Effect of Naringenin on Paraquat-Induced Toxicity in Mitochondria Isolated from Rats. *Jundishapur Journal of Natural Pharmaceutical Products*. **2016**, 11(2): e32968 , DOI: 10.17795/jjnpp-32968.

Hadi Darvishi, Mohsen Rezaei, Mohammad Javad Khodayar, Hamid Reza Zargar, Mohammad Amin Dehghani, Hossein Rajabi Vardanjani, and Sahebeh Ghanbari | Differential Effects of Meloxicam on Pentylenetetrazole- and Maximal Electroshock-Induced Convulsions in Mice. *Jundishapur J Nat Pharm Prod*. **2016**. doi: 10.17795/jjnpp-36412.

M Heidari, **M Rezaei**, R Badri. Tributylhexadecylphosphonium bromide: an efficient reagent system for the one-pot synthesis of 2, 4, 5-trisubstituted. *Heterocyclic Communications*: **2015**; 21 (2), 73-76.

Elham Keshtzar, Mohammad Javad Khodayar, Mansoureh Javadipour, Mohammad Ali Ghaffari, David L. Bolduc, **Mohsen Rezaei**. Ellagic acid protects against arsenic toxicity in isolated rat mitochondria possibly through the maintaining of complex II. *Human and Experimental Toxicology*: **2015**, DOI: 10.1177/0960327115618247

Mohammad Heidari, Rashid Badri, **Mohsen Rezaei**, Mohammad Reza Shushizadeh, Ali Reza Kiasat. Mitochondrial Protection against Arsenic Toxicity by a Novel Gamma Tocopherol Analogue in Rat. *Bull. Env. Pharmacol. Life Sci.*, Vol 4 February **2015**; 43-55

M Rezaei, F Khodaei, MS Bargard, M Abasinia. Long-Term Methadone Intake and Genotoxicity in Addicted Patients. *Jundishapur journal of natural pharmaceutical products* **2015**; 10 (1).

Mohammad Javad Khodayar, Elham Keshtzar, Mansoureh Javadipour Morteza Hosseini, Mahmoud Hashemitabar, Shahin Ahmadi, **Mohsen Rezaei**. Sea cucumber enhances apoptotic activity of lovastatin. *International Journal of Experimental Pharmacology*. 1, **2015**; 37-41.

Azadeh Nakisa, Zahra Nazari Khorasgani¹, **Mohsen Rezaei**, Nima Imani, Saeid Rezaee. Determination of the Most Toxic Polychlorodibenzofurans in Fresh Milk from Southwest Iran. *Food and Nutrition Sciences*, **2015**, 6, 955-963. doi:10.4236/fns.2015.611099

Rezaei M, Khorasgani ZN, Nakisa A, Imani N, Rezaee S, et al. (2015) Determination of Polychlorinated Dibenzo Dioxin Levels in Fresh Milk

from the Dairy Factories of Southwest Iran. J Environ Anal Toxicol 5:5 301. doi:10.4172/2161-0525.1000301

Mojtaba Kalantar; **Mohsen Rezaei**; Eskandar Moghimipour; Neda Bavarsad; Heibatallah Kalantari; Golnaz Varnaseri; Arash Forouzan. Evaluation of Apoptosis Induced by Celecoxib Loaded Liposomes in Isolated Rat Hepatocytes. Jundishapur J Nat Pharm Prod. **2015** August; 10(3): e25421. DOI: 10.17795/jjnpp-25421.

Rezaei M, Zeidooni L, Hashemitabar M, Razzaz zadeh S, Mahdavi M, Ghasemi K, Gamma-Tocopherol Enhances Apoptotic Effects of Lovastatin in Human Colorectal Carcinoma Cell Line (HT29). Nutrition and Cancer, 66(8). **2014**, DOI: 10.1080/01635581.2014.956250.

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Arast Y, Rezaei M, Sabet Birjandi S,. Serum zinc level in third trimester of pregnant women. *Hormozgan Medical Journal*, 2010, 14(2): 87-90.

M. Rezaei, M.J. Khodayar, E. Seydi, et al. Effect of n-acetylcysteine, carvedilol and propranolol on arsenic induced hyperglycemia in rat. *Toxicology Letters* 205S1 (2011) S185.

M. Rezaei, H. Kalantari, M HashemiTabar, M Jafari, et al,. Determination of cell death induced by lovastatin on human colon cell line HT29 using comet assay. *Toxicology Letters* 205S1 (2011) S116-S117.

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Kalantari H, Rezaei M, Mahdavinia M, et al. Determination of the mutagenicity potential of Supermint[®] herbal medicine by single cell gel electrophoresis in rat hepatocytes. *Advanced Pharmaceutical Bulletin*, 2012, 2(2), 245-248.

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Jafari M, Rezaei M, Kalantari H and Hashemitabar M. Determination of Cell Death Induced by Lovastatin on Human Colon Cell Line HT29 Using the Comet Assay. *JundiShapur J Nat Pharm Prod*, 2013, 8(4): 187-91.

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H. Najafzadeh, M. Rezaei, A. Ashrafi, A. Samimi, Apoptosis following Conventional and Nano-Particles of Sodium Arsenite Treatment in Hepatocytes of Rat. *J Babol Univ Med Sci*; 2014, 16(8); Aug 2014; pp: 39-45.

Neda Sistani Karampour; Ardeshir Arzi; Hossein Najafzadeh Varzi; Babak Mohammadian; **Mohsen Rezaei**, Quercetin Preventive Effects on Theophylline-Induced Anomalies in Rat Embryo. *Jundishapur J Nat Pharm Prod*. 2014 9(3): e17834.

Azadbakht Y, Siahpoosh A, Rezaei M, et al. Protective effect of date seed (*Phoenix dactylifera*) extract against carbon tetrachloride toxicity in freshly isolated rat hepatocytes. *Research in Pharmaceutical Sciences*. 2012; 7(5): S165.

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Arzi A, Rezaei M, Aghel N, Nazari Z, Noori Mombeyni S,. Effect of white mulberry leaves hydro-alcoholic extract on carrageenan-induced inflammation in male rat's hind paw. *Scientific Medical Journal*, 2009, 8(2): 148-156.

Mohsen Rezaei; Hossein Rajabi Vardanjani; Marzieh Pashmforoosh; Davood Alipour; Ali Nesari; Zahra Mansourzade; and Mohammad Javad Khodayar. Involvement of Spinal CB1 Cannabinoid Receptors on the Antinociceptive Effect of Celecoxib in Rat Formalin Test. *Jundishapur Journal of Natural Pharmaceutical Products*, DOI: 10.17795/jjnpp-33433.

Siahpoosh A, Rezaei M, Azadbakht Y. Study of date seed extract (*Phoenix dactylifera*) variete: Deiri Abadan. Liver protective effect against carbon tetrachloride toxicity in male rats. *Research in Pharmaceutical Sciences*,

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Abbasi nia M, Rezaei M, Sayyah M. Mutagenicity evaluation of methadone in addicted patients. Research in Pharmaceutical Sciences. **2012**; 7(5): S161.

Samimi A, Najafzadeh Varzi H, Rezaei M, et al. Arsenic nanoparticles induced apoptosis more than usual in rat hepatocytes. Research in Pharmaceutical Sciences. **2012**; 7(5): S125.

Rezaei M, Hashemitabar M, Zaydooni L. Role of Gamma-tocopherol and lovastatin in programmed cell death induction in human colorectal carcinoma cell line (HT29). Accepted for presentation at the International Cell Death Society (ICDS) **2012** meeting in Singapore.

Books:

1- Mitochondrial Metabolism: An Approach to Disease Management, 1st Edition. Editors: Jalal Pourahmad, **Mohsen Rezaei**, eBook ISBN: 9780128224090, Paperback ISBN: 9780128224168, Imprint: Academic Press, Published Date: 28th July **2021**.

2- Common Addictions, ISBN 978-622-612182-8, Shahid Beheshti University of Medical Sciences, Iran (Persian), **2021**.

3- Chapter 4: Ellagic Acid and Mitochondria Associated Disorders. In: Ellagic Acid: Food Sources, Potential Role in Human Health and Antioxidant Effects .Editor: Edmund Brewer. Food Science and Technology. Nova Science Pub Inc. U.S. (August 30, **2016**), English ISBN-10: 1634856589 ISBN-13: 978-1634856584.

4-The role of mitochondria in drug toxicity. Iran (Persian) (**2014**).

Some thesis supervision and research projects:

Ongoing:

- Mitochondrial protection evaluation in acute and chronic toxic insults.
- Targeting of mitochondria and cancerous cell receptors for therapeutic purposes.
- Role of damaged brain mitochondria in the pathogenesis of neurodegenerative states.

- Mitochondria related biomarkers
- Mitotherapy in different pathologies
- Antibody drug conjugates (ADCs)

Completed:

- Study of celecoxib and tocopherol induced apoptosis in human colorectal carcinoma cell line (2008).
- Study of lovastatin and tocopherol induced apoptosis in human colorectal carcinoma cell line (2008).
- Diabetogenic effect of long-term arsenic intoxication in rat (2008).
- Effect of white mulberry leaves hydroalcoholic extract on carrageenan-induced inflammation in male rat's hind paw (2009).
- Effects of intrathecal administration of celecoxib and cannabinoid antagonist on pain induced by formalin in rats paw (2009).
- Serum zinc level at third trimester in normal unipara pregnant women (2009).
- Effect of acetylcysteine, carvedilol and propranolol on arsenic induced hyperglycemia in rat (2010).
- Determination of cell death induced by lovastatin on human colorectal carcinoma cell line using comet patterns (2010).
- Genotoxicity evaluation of "Dillsun" oral drop on fresh hepatocytes of rat using comet assay (2010).
- Genotoxicity evaluation of sour cherry on fresh hepatocytes of rat using comet assay (2010).
- Mutagenicity evaluation of methadone in addicted patient's referred to Imam Khomani hospital of Ahvaz (2011).
- Mechanism of cell death induced by lovastatin and Gamma-tocopherol in combination (mitochondrial $\Delta\psi$, cytochrome c release, caspase3 activation) on human colorectal carcinoma cell line (2 Pharm D and MSc theses) (2011-2012).
- Apoptotic effect evaluation of sea cucumber extract on human colorectal carcinoma cell line (HT29) using comet patterns (2012).
- A search for protective effect of date seed extract against carbon tetrachloride toxicity in freshly isolated rat hepatocytes (2012).
- Apoptosis induction by sodium arsenite nanoparticles and celecoxib nanoparticles in colon carcinoma cell line and freshly isolated rat hepatocytes (2 MSc theses)
- Determination of Dioxins and Furans (PCBs) levels in cow's milk in Khuzestan province by HPLC and GC Mass (2 Pharm D theses)
- Apoptotic effect of date seed extract on human colorectal carcinoma cell line (HT29) (Pharm D theses).
- Isolation of Langerhans islets from rat pancreas and evaluating the effect

- of arsenic and some mitochondrial protectants (MSc thesis)
- T2 toxin determination in corn and evaluation of its cytotoxicity in freshly isolated rat hepatocytes (PhD thesis).
 - Design and characterization of a new aptamer biosensor for detection of Aflatoxin (PhD thesis).
 - Mitochondrial protection in diabetes and neurodegenerative diseases (PhD thesis).
 - Cellular and molecular effects of γ -tocopherol, Dichloroacetate (DCA) and 3-bromo pyruvate (3-BrPA) on mitochondrial stability and toxicity in human colorectal carcinoma cell line (HT29) (PhD thesis).
 - Hydroalcoholic extract of *Capparis Spinosa* and *Teucrium polium* on mitochondrial stability and Sirt3 activity (2 MSc theses)- Cytotoxicity of some tocopherol derivatives on colon carcinoma cell line (MSc thesis).
 - Study the role of specific nutraceuticals on memory impairment induced by proteasome inhibition in rat hippocampal mitochondria (MSc thesis).

Experience:

- 2015-now: Tarbiat Modares University (Education and research)
2006-2015: Assistant Professor in Jundishapur University of Medical Sciences (Research and Education)
2002-2004: Teaching Pharmacy Practice and Pharmacology in Shaheed Beheshti Pharmacy School
1999- 2005: Pharmacy Practice in Private Pharmacy

Memberships:

- 2017 British Pharmacological Society
2007 International cell death society
2003 Iranian Society of Toxicology
2001 Iranian Society of Pharmacists

Research Skills:

- Rat handling and cannulation (portal, jugular and intrathecal)
- Two steps collagenase perfusion of liver and hepatocyte preparation in Rat
- Brain and liver mitochondrial isolation and evaluations
- Drugs and toxicants interactions with mitochondria
- Evaluation of toxicity in cellular and organelles including mitochondria and lysosomes
- Genotoxicity
- Oxidative stress (Mitochondria related)
- Apoptosis evaluations

- Formalin test and related evaluations
- Inflammatory rat paw edema and related evaluations
- Mitochondrial transplantation
- Antibody drug conjugation

Research Interests:

- Cellular and molecular mechanisms of cell injury and programmed cell death (Mitochondria related)
- Subcellular organelle evaluations in programmed cell death
- Excitotoxicity and Neuroprotection
- Mitochondria associated pathogenesis and treatment of Diabetes
- Genotoxicity and Carcinogenicity
- Chemoprevention and Cancer treatment (Mitochondria related)
- Novel derivatives of natural and nutraceuticals for dealing with chronic mitochondria related diseases.
- Mitochondrial transplantation
- Antibody drug conjugation