

Curriculum Vitae

Bahram Daraei

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Academic Background

- 1997 – 2004 Ph.D. in Pharmacology and Toxicology, Shahid Beheshti University of Medical Sciences, Tehran, Iran
1987 - 1994 Pharm.D., Isfahan University of Medical Sciences, Isfahan, Iran
1980 - 1984 High school Diploma, Imam Khomani High School, Khoram-abab, Iran

Achievements and Awards

Grant, Evaluation of natural occurrence of *Fusarium* mycotoxins in wheat fields of northern Iran in 1996. Research Department of Ministry of Health, (1996).

- 1993 - Present Member, Iranian Society of Toxicology
1996 - Present Member, Iranian Society of Pharmacuetical Scientists
1996 - Present Member, Iranian Physiology and Pharmacology Society

Research Techniques and Experiences

Pharmacological and Toxicological Screening of synthetic and natural products.
Jugular vein and carotid artery catheterization in rats.
Analytical techniques using GC and GC-MS.
Brain microdialysis in rats.
isolated perfused rat liver
Rat liver isolated and kidney cells for toxicity testing
Applications of soft wares in health sciences and statistics.
Behavior studies in Mice and Rat.
Introductory Radiation Safety from the University of Queensland.
Molecular biology (Cell culture, DNA extraction, DNA purification, PCR, Cycle sequencing, RNA extraction and purification, cDNA, RT PCR, and Microarrays techniques from The University of Queensland.

Teaching Experiences:

Drug and macromolecule Interaction (Ph D level)

Cell toxicity (Ph D. Pharm.D. and MSc levels)

General Toxicology (Ph D., Pharm.D. and MSc levels)

Toxicology laboratory (Ph D., Pharm.D. and MSc levels)

Pharmacology laboratory (Ph D., Pharm.D. and MSc levels)

Pharmacology (Pharm.D. and MSc levels)

Clinical Toxicology (Pharm.D. and MSc levels)

Analytical Toxicology (Pharm.D. and MSc levels)

Abstracts and Publications

Marzieh Jafari, Mohsen Rezaei, Heibatullah Kalantari, Maryam Tabarzad,

Bahram Daraei .DNAzyme–aptamer or aptamer–DNAzyme paradigm:

Biochemical approach for aflatoxin analysis (2018) *Biotechnology and applied biochemistry* 65 (2), 274-280

S Farzaneh, S Shahhosseini, H Arefi, **B Daraei**, M Esfahanizadeh, A Zarghi

Design, synthesis and biological evaluation of new 1, 3-diphenyl-3-

(phenylamino) propan-1-ones as selective cyclooxygenase (COX-2) inhibitors.

(2018) *Medicinal chemistry*

Shabnam Farzaneh, Elnaz Zeinalzadeh, **Bahram Daraei**, Soraya

Shahhosseini, Afshin Zarghi. New Ferrocene Compounds as Selective

Cyclooxygenase (COX-2) Inhibitors: Design, Synthesis, Cytotoxicity and

Enzyme-inhibitory Activity. (2018) *Anti-Cancer Agents in Medicinal Chemistry*

(Formerly *Current Medicinal Chemistry-Anti-Cancer Agents*) 18(2) pp. 295-301

Mohammad Hassan Houshdar Tehrani, Mohammad Ali Ahmaditaba, Afshin

Zarghi, **Bahram Daraei**, Sorayya Shahhosseini. Design, synthesis and

biological evaluation of novel peptide-like analogues as selective COX-2

inhibitors (Winter 2018) *Iranian Journal of Pharmaceutical Research*. 17 (1),

87

Daraei, B., Aghvami, M., Pourahmad, J., Dinarvand, R .A comparison of

hepatocyte cytotoxic mechanisms for docetaxel and PLGA-docetaxel

nanoparticles . *Iranian Journal of Pharmaceutical Research* (2017) 16(1),

pp. 249-265

Daraei, B., Aghvami, M., Pourahmad, J., Dinarvand, R. A comparison of

hepatocyte cytotoxic mechanisms for docetaxel and PLGA-docetaxel

nanoparticles. *Iranian Journal of Pharmaceutical Research* (2017) 16(1), pp.

249-265

Ahmaditaba, M.A., Shahosseini, S., **Daraei, B.**, Zarghi, A., Houshdar Tehrani, M.H. Design, Synthesis, and Biological Evaluation of New Peptide Analogues as Selective COX-2 Inhibitors. *Archiv der Pharmazie* (2017) 350(10),1700158

Makhdoumi, P., Zarghi, A., **Daraei, B.**, Karimi, G. Evaluation of cytotoxicity effects of chalcone epoxide analogues as a selective COX-II inhibitor in the human liver carcinoma cell line. *Journal of Pharmacopuncture* (2017) 20(3), pp. 207-212

Optimization of Aflatoxin B1 Aptasensing Jafari, M., Rezaei, M., Kalantari, H., Tabarzad, M., **Daraei, B.** *Journal of Toxicology* (2017) 2017,2461354

Jafari, M., Rezaei, M., Kalantari, H., Tabarzad, M., **Daraei, B.** DNAzyme-aptamer or aptamer-DNAzyme paradigm: Biochemical approach for aflatoxin analysis. *Biotechnology and Applied Biochemistry* (2017)

Ebrahimian, Z., Karimi, Z., Khoshnoud, M.J., Daraei, B., Haidari, Behavioral and stereological analysis of the effects of intermittent feeding diet on the orally administrated MDMA (“ecstasy”) in mice. *Innovations in Clinical Neuroscience M.R.* (2017) 14(1-2), pp. 40-52

Movahed, M.A., **Daraei, B.**, Zarghi, A. Synthesis and biological evaluation of new imidazo[1,2-a]pyridine derivatives as selective COX-2 inhibitors. *Letters in Drug Design and Discovery* (2016) 13(8), pp. 793-799

Sadeghi, M., Ganji, F., Taghizadeh, S.M., **Daraei, B.** Preparation and characterization of rivastigmine transdermal patch based on chitosan microparticles. *Iranian Journal of Pharmaceutical Research* (2016) 15(3), pp. 283-294

H Abolhasani, S Dastmalchi, M Hamzeh-Mivehroud, **B Daraei**, A Zarghi Design, synthesis and biological evaluation of new tricyclic spiroisoxazoline derivatives as selective COX-2 inhibitors and study of their COX-2 binding modes via docking studies. *Medicinal Chemistry Research* (2016) 25 (5), 858-869

B Daraei, M Karimi, A Nateghi

Simultaneous determination of six benzodiazepines in spiked soft drinks by high performance liquid chromatography with ultra violet detection (HPLC-UV) *Iranian Journal of Pharmaceutical Research* (2016) 15 (2), 457-463

M Sadeghi, F Ganji, SM Taghizadeh, **B Daraei**.

Preparation and Characterization of Rivastigmine Transdermal Patch Based on Chitosan Microparticles. Iranian Journal of Pharmaceutical Research (summer 2016)

Iman Sabakhi, Vigen Topuzyan, Zahra Hajimahdi , **Bahram Daraei**, Hadi Arefi and Afshin Zarghi. Design, Synthesis and Biological Evaluation of new 1, 4-Dihydropyridine (DHP) Derivatives as Selective Cyclooxygenase-2 Inhibitor. .. Iranian Journal of Pharmaceutical Research (2015), 14 (4)

Maryam Kakanj, Mahmoud Ghazi-Khansari, Abbas Zare Mirakabadi, **Bahram Daraei** and Hossein Vatanpour. Cytotoxic Effect of Iranian Vipera lebetina Snake Venom on HUVEC Cells. Iranian Journal of Pharmaceutical Research (2015),14 (Supplement): 109-114

Seyed Ali Hashemi, Abdolamir Allameh, **Bahram Daraei**, Kamran Moradi Peynevandi, Ramin Pashazadeh.. The Effect of Rebadioside A on Attenuation of Oxidative Stress in Kidney of Mice under Acetaminophen Toxicity . Iranian Journal of Toxicology, Volume 7, No 23, Winter 2014

Afshin Zarghi , Iman Sabakhi , Vigen Topuzyan , Zahra Hajimahdi and **Bahram Daraiee**. Design, Synthesis and Biological Evaluation of 5-Oxo-1,4,5,6,7,8 Hexahydroquinoline Derivatives as Selective Cyclooxygenase-2 Inhibitors. Iranian Journal of Pharmaceutical Research (2014),13 (supplement): 61-69

Fatemeh Rezaei, Yadollah Yamini, Morteza Moradi, **Bahram Daraei** . Supramolecular solvent-based hollow fiber liquid phase microextraction of benzodiazepines. Analytica Chimica Acta : 804 (2013) 135–142

Bahram Daraei and et al. Uranyl Acetate Induces Oxidative Stress and Mitochondrial Membrane potential collapse in the Human Dermal Fibroblast Primary Cells. Iranian Journal of Pharmaceutical Research (2012). On line.

Afshin Zarghi*, Tannaz Zebardast, Fatemeh Hajighasemali, Eskandar Alipoor, **Bahram Daraie**, Mehdi Hedayati Design and Synthesis of New 1, 3-Benzodiazinan-4-one Derivatives as Selective Cyclooxygenase (COX-2) Inhibitors. Arch. Pharm. Chem. Life Sci. 2011, 000, 1–1. On line

Mohammad Reza Eskandari, Jalal Pourahmad and **Bahram Daraei** . Thallium(I) and thallium(III) induce apoptosis in isolated rat hepatocytes

by alterations in mitochondrial function and generation of ROS .Toxicological & Environmental Chemistry .Vol. 93, No. 1, January 2011, 145–156

Jalal Pourahmad, Mohammad Reza Eskandari, **Bahram Daraei**.

A Comparison of Hepatocyte Cytotoxic Mechanisms for Thallium (I) and Thallium (III). Environ Toxicol 25: 456–467, 2010.

Razieh Ghodsi, Afshin Zarghi , **Bahram Daraei**, Mehdi Hedayati.

Design, synthesis and biological evaluation of new 2,3-diarylquinoline derivatives as selective cyclooxygenase-2 inhibitors .Bioorganic & Medicinal Chemistry 18 (2010) 1029–1033

Jalal Pourahmad, Mir-Jamal Hosseini, Mohammad Reza Eskandari, Seyed Mohammad Shekarabi, and **Bahram Daraei** .Mitochondrial/lysosomal toxic cross-talk plays a key role in cisplatin nephrotoxicity .Xenobiotica, 2010; 40(11): 763–771

Tannaz Zebardast, Afshin Zarghi, **Bahram Daraie**, Mehdi Hedayati,Orkideh G. Dadrass.

Design and synthesis of 3-alkyl-2-aryl-1,3-thiazinan-4-one derivatives as selective cyclooxygenase (COX-2) inhibitors. Bioorganic & Medicinal Chemistry Letters 19 (2009) 3162–3165

Afshin Zarghi, Razieh Ghodsi, Ebrahim Azizi, **Bahram Daraie**, Mehdi Hedayati and Orkideh G. Dadrass.

Synthesis and biological evaluation of new 4-carboxyl quinoline derivatives as cyclooxygenase-2 inhibitors. Bioorganic & Medicinal Chemistry 17 (2009) 5312–5317

Zarghi A, Tannaz Zebardast, **Bahram Daraie**, Mehdi Hedayati.

Design and synthesis of new 1,3-benzthiazinan-4-one derivatives as selective cyclooxygenase (COX-2) inhibitors. Bioorganic & Medicinal Chemistry Letters, 17(2009) 5369-5373.

Afshin Zarghi, Samaneh Kakhgi, Atefeh Hadipoor, **Bahram Daraee**, Orkideh G. Dadrass and Mehdi Hedayati.

Design and synthesis of 1,3-diaryllurea derivatives as selective cyclooxygenase (COX-2) inhibitors. Bioorganic & Medicinal Chemistry Letters Volume 18, Issue 4, 15 February 2008, Pages 1336-1339

Afshin Zarghi, Azar Tahghighi, Zohreh Soleimani, **Bahram Daraie**, Orkideh Gorbani Dadrass, Mehdi Hedayati.

Design and Synthesis of Some 5-Substituted-2-(4-(azido or methylsulfonyl) phenyl)-1H-indole Derivatives as Selective Cyclooxygenase. Sci Pharm. 2008; 76: 361–376

Zarghi A, Najafnia L, **Daraee B**, Dadrass OG, Hedayati M.
Synthesis of 2,3-diaryl-1,3-thiazolidine-4-one derivatives as selective cyclooxygenase (COX-2) inhibitors. *Bioorg Med Chem Lett.* 2007 Oct 15;17(20):5634-7. pub 2007 Aug

Elmi A, Sadeghi Zh, Elmi S, **Daraei B**, Ghazi-Khansari M. Hepatoprotective role of captopril on paraquat induced hepatotoxicity. *Hum Exp Toxicol.* 2007 Oct;26(10):789-94.

Elmi S, Sadeghi ZH, Elmi A, **Daraei B**, Ghazi-Khansari M. Paraquat-induced hepatotoxicity in the rat hepatocytes. 8th Iranian congress of toxicology December 6-8, 2004.

Bahram Daraei, Mahmoud Ghazi-Khansari, Hamid Reza Rasekh. T2-Toxin Hepatotoxicity in the Isolated Perfused Rat Liver Model. *IJPR*, (2004) 4:225-230.

Bahram Daraei Ghazi-Khansari M., Rasekh H.R. Toxicity of T-2 toxin in isolated perfused rat liver. *Toxicology and Applied Pharmacology.* (2004), 197(3): 298 .

Jalal Pourahmad, Peter J. O Brian, Farzaneh Jokar, **Bahram Daraei**. Carcinogenic metal induced sites of reactive oxygen species formation in hepatocytes. *Toxicology in Vitro.* (2003), 17, 803-810.

B. Daraei, B. Shams Ardakasni. Evaluation of Zinc and Copper serum levels in Failure to thrive children in Isfahan, Iran. *Toxicology Letters*, 2001.

Yazdanpanah, H., **Daraei B.**, Shafaati, A., Rasekh, H.R., and Moradkhani (1998) Natural occurrence of Fusarium mycotoxins in 21 infant's grain-based food samples from the Iranian market. *J. Veterinary Sciences*, 25(3): 708.

Yazdanpanah; H., **Daraei B.**, Saifi, Z., Rasekh, H.R., Shafaati, A., and Moradkhani, M. (1998) Natural occurrence of Fusarium mycotoxins in Corn-based product from the Iranian market. *Toxicology Letters*, 52(6): 156.

Daraei B., Yazdanpanah, H., Saberi, H., Shaker Ardakani, M., Zarghi, A., Rasekh, H-R, Shafaati, A. (1998) Natural occurrence of Fusarium mycotoxins in wheat-based product from the Iranian market. *Toxicology Letters*, 156 (6): 52.

Yazdanpanah, H., **Daraei B.**, Rasekh, H.R., Lajvardi Z. (2000) Survey of The Occurrence of Fusarium mycotoxins in wheat samples of Iran in 1997.

Abstracts of X International IUPAC Symposium on Mycotoxins and Phycotoxins, Guaraja, Brazil, p.145.

Vatanpour H., Sayyad A., **Daraei B.** Tetrodotoxin like toxin from arothron stellatus in Persian golf. Abstracts of Toxicology Letters, Oct. 1996. P3U-399.

H. Vatanpour. **B. Daraei.** Is the Lysine triplet 28-30 essential for dendrotoxin binding to voltage-dependent K⁺ channels. Abstracts of 6th International Symposium on Natural Product Chemistry, 1996, Karachi, Pakistan. P.129.

Participation in the National and international congresses

National:

- 1) 3rd Iranian congress of Toxicology, 1993, Mashhad, Iran.
- 2) 12th Iranian congress of Physiology and Pharmacology, 1995, Tehran University of Medical Sciences. Tehran, Iran.
- 3) 4th Iranian congress of Toxicology, 1995, Shaheed Beheshti University of Medical Sciences, Tehran, Iran.
- 4) 5th Iranian congress of Toxicology and First International congress of Asia-Pacific Association of Medical Toxicology (APAMT-1), 1997, Tehran University of Medical Sciences. Tehran, Iran.
- 5) First congress of Alternative Medicine, 2000, Shaheed Beheshti University of Medical Sciences, Tehran, Iran.

International

- 1) 6th International Symposium on Natural Product chemistry, 1996, Karachi, Pakistan.
- 2) Eurotox 96, 1996, Alicante, Spain.
- 3) ICT VIII, International congress Of Toxicology, 1998, Paris, France.
- 4) Mycotox'98, 1998, Toulouse, France.
- 6) ICT IX, International congress Of Toxicology 2001, Brisbane, Australia
- 7) 3rd International Congress of the Asia Pacific Association of Medical Toxicology 2002, Penang, MALAYSIA
- 8)) ICT X, International congress Of Toxicology 2004, Tempra, Finland