

## Curriculum Vitae

### Personal Data:

**Name & Surname:** Seyed Hadi Mousavi

**Date & Place of Birth:** 23/8/1974 (1/6/1353) Torbateheydarieh- Iran

**Gender:** Male

**Citizenship:** Iranian

**Marital Status:** Married

**Work address:** Department of Pharmacology, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran.

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### 1- Current position (August 2006)

- 1- Associate Professor, Department of Pharmacology, School of Medicine, Mashhad University of Medical Sciences, Mashhad, Iran
- 2- Faculty Member of Pharmacological **Research Centre of Medicinal Plants**, Mashhad University of Medical Sciences, Mashhad, Iran.
- 3- Faculty Member, Medical Toxicology Research Centre, Mashhad University of Medical Sciences, Mashhad, Iran.
- 4- Research Manager of School of Medicine, Mashhad University of Medical Sciences
- 5- Faculty Member, Education & Development Department, School of Medicine, Mashhad University of Medical Sciences.
- 6- **Executive Member** of Middle-Eastern Association for Cancer Research (MEACR).

### Academic Background:

#### 1- May 2006

Receiving Ph.D. degree from the Department of Pharmacology at Iran University of Medical Sciences Faculty of Medicine, Tehran, Iran.

#### 2- July 2005 until December 2005

Visiting researcher in the laboratory of Dr. Peter. Hersey at University of Newcastle, Australia.

**3- January 2001**

Beginning a Ph.D. program in the Department of Pharmacology at Iran University of Medical Sciences Faculty of Medicine, Tehran, Iran.

**4- September 1992 until September 2000**

Medical Doctor program at Mashhad University of Medical Sciences Faculty of Medicine, Mashhad, Iran.

**Awards and Ranks:**

**2009**

**First Rank** in the “Best Researcher Award” at Mashhad University of Medical Sciences

**2009**

**Best Idea** in Medical education in “Shahid Motahhari Medical Education Festival” at Mashhad University of Medical Sciences

**2005**

Iranian Ministry of Health and Medical Education research travel grant for a 6-month stay as part of my Ph.D. program in the laboratory of Dr. P. Hersey at University of Newcastle, Australia

**2000**

National Ph.D. Entrance Exam (Pharmacology), **1<sup>st</sup> rank** among 200 participants.

**1998**

**Third Rank** in internship exam at Mashhad University of Medical Sciences.

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**Membership:**

1- Iranian Society of Toxicology, April 2006 to date.

2- Asia Pacific Association of Medical Toxicology, December 2007 to date.

**Published Original papers:**

2- Sharifi AM, **Mousavi SH**, Bakhshayesh M, Tehrani FK, Mahmoudian M, Oryan S. Study of correlation between lead-induced cytotoxicity and nitric oxide production in PC12 cells. **Toxicol Lett.** 2005 Dec 30;160(1):43-8. Epub 2005 Jul 21.

- 3- Sharifi AM, **Mousavi SH**, Larijani B. Study of correlation between systolic blood pressure and angiotensin converting enzyme (ACE) activity in STZ induced diabetic rats. *Iranian Journal of Diabetes and Lipid Disorders*. 2005 4(2): 7-13
- 4- Sharifi AM, **Mousavi SH**, Larijani B. Effect of insulin on serum and tissue ACE activity in diabetic rats. *Iranian Journal of Diabetes and Lipid Disorders*. 2004 3(2): 195-200
- 5- Farhadi M, Parivar K, Sharifi AM, Zeinali S, **Mousavi SH**, Bakhshayesh M. Effect of different glucose concentration on PC12 cells apoptosis: role of Bax and Bcl-2 proteins. *Medical Sciences Journal of Islamic Azad University*. 2005 15(4), 161-166
- 6-Fata AM , Bloorasaz M, **Mousavi SH**. Porbadakhshan M. Comparison the efficacy of griseofulvin and miconazole (alone and together) on 100 patients suffering from dermatophytosis in Mashhad.. *Medical Journal of Mashhad University of Medical Sciences* 2001, 44 (72), 36-41
- 7- **Mousavi SH** <sup>\*</sup>, Zhang XD , Sharifi AM and Hersey P. Study of Rose Bengal-Induced Cell Death in Melanoma Cells in the Absence of Light. *Iranian Journal of Basic Medical Sciences*. 2006. 9 (3), 216-222
- 8- Fata AM, Tavasoli F, **Mousavi SH**, EbrahimBoshra – Al- Amin Sh. Efficacy of Clotrimazole, Nystatin and Povidone Iodine in Treatment of Patients Suffering from Vaginal Candidiasis. *Medical Journal of Mashhad University of Medical Sciences*. .. 2007. (94)
- 9- Sharifi AM, **Mousavi SH**, Farhadi M, Larijani B. Study of high glucose-induced apoptosis in PC12 cells: role of bax protein. *J Pharmacol Sci*. 2007 Jul;104(3):258-62.
- 10- **Mousavi SH** <sup>\*</sup>, and Hersey P. Role of caspases and reactive oxygen species in rose bengal-induced toxicity in melanoma cells. *Iranian Journal of Basic Medical Sciences*. 2007 10 (2), 210-215
- 11- Sharifi AM, **Mousavi SH** Studying the Effects of Lead on DNA Fragmentation and Proapoptotic Bax and Antiapoptotic Bcl-2 Protein Expression in PC12 Cells **Toxicology Mechanisms and Methods**, 2008, 18, 79-75
- 12- Balali-Mood M, **Mousavi SH**, Balali-Mood B. Chronic health effects of sulfur mustard exposure with special reference to Iranian veterans. *Emerging Health Threats*. 2008, 1:e2, 1-12
- 13- **Mousavi SH** <sup>\*</sup>, Moosavi SH, Lysosome: as a proposed target for rose bengal in inducing cell death in melanoma cells. *Irn J Med Hypotheses Ideas*. 2008, 2:12
14. Alavian SM, Moosavi SH, **Mousavi SH**, Azizi B, Akbari H, Study of Admission Rate of Hepatitis B Surface Antigen Positive Patients in 50 Dentistry Centers in Tehran (Spring 2003). *Hepatitis Monthly* 2007; 8(1), 67-69
- 15- Tavakkol Afshari J, Brook A, **Mousavi SH** <sup>\*</sup>. Study of cytotoxic and apoptogenic properties of saffron extract in human cancer cell lines. *Food Chem Toxicol*, 2008 Nov; 46, 3443-3447.

- 16 **Mousavi SH\***, Tayarani-Najaran Z, Hersey P. Apoptosis: from Signalling Pathways to Therapeutic Tools. *Iranian Journal of Basic Medical Sciences*. Vol. 11, No. 3, Autumn 2008, 121-142
- 17- **Mousavi SH\***, Tavakkol Afshari J, Brook A, Jafari Anarkooli I. Direct toxicity of rose bengal in MCF-7 cell line: Role of apoptosis. *Food Chem Toxicol*, 2009. 47(4):855-9.
- 18- **Mousavi SH\***, Tavakkol Afshari J, Brook A, Jafari Anarkooli I. Role of caspases and Bax protein in saffron-induced apoptosis in MCF-7 cells. *Food Chem Toxicol*, 2009. Aug;47(8):1909-13
- 19- **Mousavi SH\***, Tavakkol Afshari J, Brook A. Study of cytotoxic effects of saffron in MCF-7 cells: role of apoptosis. *Iranian Journal of Pharmaceutical Sciences (IJPS)*. 2008; 4(4): 263-268
- 20- **Mousavi SH**, Tayarani-Najaran Z, Parsaee H. Protective effect of saffron extract and crocin on reactive oxygen species-mediated high glucose-induced toxicity in PC12 cells. *Cell Mol Neurobiol* 2009 Aug 27..
- 21- **Mousavi SH**, Zamani TR SH, Siadat Z, Mahmoudi M. Study the anti-inflammatory effect of Rose Bengal in LPS-activated macrophages in dark. *Journal of Birjand University of Medical Sciences*. 2009; 16 (2): 10-17.
- 22- Tayarani-Najaran Z, **Mousavi SH**, Asili J, Emami SA. Growth-inhibitory effect of *Scutellaria lindbergii* in human cancer cell lines. *Food Chem Toxicol*. 2009 Nov 20.
- 23- Tayarani-Najaran Z, Asili J, Emami SA. **Mousavi SH\*** Analyzing cytotoxic and apoptogenic properties of *Scutellaria litwinowii* root extract on cancer cell lines. *Evidence Based Complementary and Alternative Medicine (Ecam)*. Dec 2009
- 24- **Mousavi SH**, Tayarani-Najaran Z, Sadeghnia HR. Protective effect of *Nigella sativa* extract and thymoquinone on serum/glucose deprivation-induced PC12 cells death. *Cell Mol Neurobiol*. Jan 2010
- 25- Sharifi AM, **Mousavi SH**, Jorjani M. Effect of Chronic Lead Exposure on Pro-Apoptotic Bax and Anti-Apoptotic Bcl-2 Protein Expression in Rat Hippocampus In Vivo. *Cell Mol Neurobiol*. 2010 Feb
- 26- Tayarani-Najaran, Z, Parsaee H, Hoseini A, **Mousavi SH\***. Study of noscapine-induced cell death in hepatocellular carcinoma cell line. *Pharmacologyonline*. Volume 3, September 2009, Pages 522-530
- 27- Tayarani-Najaran Z, Sadeghnia HR, Asghari M, **Mousavi SH\***. Neuroprotective effect of *Nigella sativa* hydro alcoholic extract on serum/glucose deprivation induced PC12 cells death. *Physiology and Pharmacology*, 2009, 13 (3), 263 – 270.
- 28- M. Bakavoli, M. Rahimizadeh, A. Shiri, M. Akbarzadeh, **Mousavi SH**, Z. Tayarani-Najaran, Z, H. Atapour-Mashhad, M. Nikpour, J. Synthesis of New Derivatives of 3-Aryl-1,5-dimethyl-1H- [1,2,4]triazolo[4,3-b]pyrimido[4,5-d][1,3,4]oxadiazines as

Potential Antiproliferative Agents J. Heterocycl. Chem., 2010,

29- M. Bakavoli, M. Rahimizadeh, A. Shiri, M. Akbarzadeh, **Mousavi SH**, H. Atapour-Mashhad, Tayarani-Najaran, Z, Synthesis and anticancer evaluation of new derivatives of 3-phenyl-1,5- dimethyl-1H-[1,2,4]triazolo[4',3':1,2]pyrimido[4,5-e][1,3,4]oxadiazine J. Chem. Res., 2010, 2010 JULY, 403–406.

30- Atapour-Mashhad H, Tayarani-Najaran Z, Davoodnia A, Moloudi R. **Mousavi SH\***. Antitumor activity of novel pyrrolo[2,3-d]pyrimidin-4-ones. Drug and Chemical Toxicology, 2011; 34(3): 271–276.

31 Mehri S, Abnous K, Mousavi SH, Shariaty VM, Hosseinzadeh H. Neuroprotective Effect of Crocin on Acrylamide-induced Cytotoxicity in PC12 cells. Cell Mol Neurobiol. 2011 Sep 7

32- **Mousavi SH**, Moallem SA, Mehri S, Shahsavand S, Nassirli H, Malaekheh-Nikouei B. Improvement of cytotoxic and apoptogenic properties of crocin in cancer cell lines by its nanoliposomal form. Pharm Biol. 2011 Oct;49(10):1039-45.

33- Amir Zamiri-Akhlaghi<sup>1</sup>, Hasan Rakhshandeh<sup>1</sup>, Zahra Tayarani-Najaran<sup>1</sup>, **Mousavi SH\***. Study of cytotoxic properties of Rosa damascena extract in human cervix carcinoma cell line. Avicenna Journal of Phytomedicine. Vol. 1, No. 2, Autumn 2011, 74-77

34- Tayarani-Najaran Z, **Mousavi SH**, Vahdati-Mashhadian N, Emami SA, Parsaee H. Scutellaria litwinowii induces apoptosis through both extrinsic and intrinsic apoptotic pathways in human promyelocytic leukemia cells. Nutr Cancer. 2012;64(1):80-8. 2011 Nov 18.

35- Afsharzadeh M, Tayarani-Najaran Z, Zare A, **Mousavi SH\***. Protective Effect of Scutellaria litwinowii Extract on Serum/Glucose-Deprived Cultured PC12 Cells and Determining the Role of Reactive Oxygen Species. Journal of Toxicology. 2012

36- Tayarani-Najaran Z, Asili J, Parsaee H, **Mousavi SH**, Vadati Mashhadian N, Mirzaee A, Emami SH. Wogonin and neobaicalein from Scutellaria litwinowii roots are apoptotic for HeLa cells. Rev. Bras. Farmacogn. / Braz. J. Pharmacogn. 2012

37- Rajabi-Mashhadia MT, **Mousavi SH**, Khosravi-Mashizi MH, ,Ghayour-Mobarhand M, Sahebkar A. Optimum duration of perioperative antibiotics therapy in patients with acute non-perforated appendicitis: a prospective randomized trial. Asian Biomedicine Vol. 6 No. 6 December 2012; 891-894

38- Assessment of Cytotoxic Properties of Safranal and Nanoliposomal Safranal in Various Cancer Cell Lines. Malaekheh M, **Mousavi SH**, Shahsavand S, Mehri S, Nassirli H and Moallem SA. Phytotherapy Research 2013

39- Cytotoxic and apoptogenic properties of three isolated diterpenoids from Salvia chorassanica through bioassay-guided fractionation. Tayarani-Najaran Z, **Mousavi SH**, Tajfard F, Asili J, Soltani S, Hatamipour M, Emami SA. Food and Chemical Toxicology, 2013

40- Apoptosis Induction of Salvia Chorassanica Root Extract on Human Cervical Cancer Cell Line. Parsaee H, Asili J, **Mousavi SH**, Soofi H, Emami SA and Tayarani-Najaran Z. Iranian Journal of Pharmaceutical Research (2013), 12 (1): 75-83

- 41- In vitro evaluation of cytotoxic and apoptogenic properties of *Sophora pachycarpa*. Tayarani-Najaran Z, Hosseini-Motaez M, Zamiri-Akhlagh A, Emami SA, **Mousavi SH**. Iranian Journal of Pharmaceutical Research (2013)
- 42- Acetylcholinesterase Inhibitors Promote Angiogenesis in Chick Chorioallantoic Membrane and Inhibit Apoptosis of Endothelial Cells. Mortazavian SM, Parsaee H, **Mousavi SH**, Tayarani-Najaran Z, Ghorbani A, Sadeghnia HR. International Journal of Alzheimer's Disease. (2013), Article ID 121068, 7 page
- 43- Cytotoxic and Apoptotic Potential of *Rheum turkestanicum* Janisch Root Extract on Human Cancer and Normal Cells. Shiehzadeha F, **Mousavi SH**, Amiri MS, Iranshahi M, Tayarani-Najaran Z, Karimi G. Iranian Journal of Pharmaceutical Research (2013), 12 (4):
- 45- Rose Bengal suppresses gastric cancer cell proliferation via apoptosis and inhibits nitric oxide formation in macrophages. Zamani Taghizadeh Rabe S, **Mousavi SH**, Tabasi N, Rastin M, Siadat Z, Mahmoudi M. Journal of Immunotoxicology. 2014 Feb 27
- 46- Different effects of adenylyl cyclase activators and phosphodiesterases inhibitors on cervical cancer (HeLa) and breast cancer (MCF-7) cells proliferation. Mahdian D, Shafiee-Nick R, **Mousavi SH**. Toxicol Mech Methods. 2014 Mar 5.
- 47- Comparative Studies of Cytotoxic and Apoptotic Properties of Different Extracts and the Essential Oil of *Lavandula angustifolia* on Malignant and Normal Cells. Tayarani-Najaran Z, Amiri A, Karimi G, Emami SA, Asili J, **Mousavi SH**. Nutr Cancer. 2014 Feb 26
- 48- Saffron in metabolic syndrome: its effects on antibody titers to heat-shock proteins 27, 60, 65 and 70. Shemshian M, **Mousavi SH**, Norouzy A, Kermani T, Moghiman T, Sadeghi A, Ghayour-Mobarhan M, Ferns GA. J Complement Integr Med. 2014 Feb 6;11(1):43-9

**\* Corresponding Author**

**Presentations:**

**Mousavi SH**\*, Sharifi A.M, Bakhshayesh M Investigation of lead-induced neurotoxicity in PC12 cell: Role of Nitric Oxide & Apoptosis. 6<sup>th</sup> annual congress of Asia Pacific Association of Medical Toxicity, Bangkok, Thailand, December 2007. **(Oral presentation)**.

Mousavi SH\*, Tavakol Afshari J, Brook A, Jafari I. Study of saffron-induced apoptosis in MCF-7 cells: role of caspase and Bax protein. 4th Life Science postgraduate Conference, 18-20th June 2008, USM, Malaysia **(Oral presentation)**.

**Mousavi SH**\*, Direct toxicity of rose bengal in MCF-7 cell line: Role of apoptosis and Bax protein. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC2008) Kerman, Iran, 18-21 August, 2008. **(Oral presentation)**.

\*  
**Mousavi SH** , Shavsavand SH, Mehri S, Moallem SA, Malaekheh B. Study of cytotoxic and apoptogenic properties of nano-liposomes forms of crocin compared to crocin in various human cancer cell lines. 11<sup>th</sup> International Conference on Advanced Materials (ICAM). Brazil, September 2009. **(Oral presentation)**

\*  
**Mousavi SH** Tavakol Afshari J , Brook A. Saffron: as a promising medicinal plant in breast and cervix cancer treatment. The First International of Gynecology Oncology Congress under the auspices of IGCS. Mashhad . 10 - 12 Oct. 2008. **(Oral presentation)**

\*  
**Mousavi SH** Tavakol Afshari J , Brook A Study of cytotoxic and apoptogenic properties of saffron extract in human cancer cell lines. Internatinal symposium on saffron a herbal medicinal of 3th millennium. Mashhad. May 2009. **(Oral presentation)**

\*  
**Mousavi SH** Tayarani-Najaran Z, Atapour-Mashhad H, Davoodnia A, Moloudi R. Cytotoxic and apoptogenic properties of novel pyrrolo[2,3-d]pyrimidin-4-ones in human cancer cell lines. 12<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC2010) Zanjan.Iran, August, 2010. **(Oral presentation).**

**Seyed Hadi Mousavi**<sup>1\*</sup>, Faezeh Tajfard<sup>2</sup>, Atefeh Amiri<sup>2</sup>, Farideh Shiezadeh<sup>2</sup>New medicinal plants as promising antitumor drugs. second annual meeting of the Middle-Eastern Association for Cancer Research (MEACR), November 27 to 29, 2012. . **(Oral presentation).**

\*  
 Sharifi AM\_ **Mousavi SH** ., Bakhshayesh Masoomeh . Study of lead-induced-apoptosis in PC12 cell. The 9<sup>th</sup> Iranian Congress of Toxicology, May 2007, shiraz, Iran

\*  
**Mousavi SH** , Tavakol Afshari J , Brook A Study of cytotoxic and apoptogenic properties of different saffron extracts in human cancer cells. 6<sup>th</sup> annual congress of Asia Pacific Association of Medical Toxicity, Bangkok, Thailand, December 2007

\*  
**Mousavi SH** , Parsaee H, Tayrani Z. Study of correlation between glucose-induced cytotoxicity and reactive oxygen species production in pc12 cells. The 10th Iranian Congress of Toxicology, May 2009, Tehran, Iran

\*  
**Mousavi SH** , Shavsavand SH, Mehri S, Moallem SA, Malaekheh B. Assessment of cytotoxic and apoptogenic properties of safranal and its nanoliposomes in various cancer cell lines. 11<sup>th</sup> International Conference on Advanced Materials (ICAM). Brazil, September 2009.

Davari A, M. Iranshahia, Z. Tayarani-Najaran, **S.H. Mousavi**\*. Apoptosis induction by auraptene, umbelliprenin and herniarin in MCF-7 cells 12th Iranian Congress of Biochemistry & 4th International Congress of Biochemistry & Molecular Biology. Mashhad, Iran. 6-9 September 2011.

Seyed Hadi Mousavi\*, Mahsa Hossini Motaez, Hojat Soufi, Seyed Ahmad Emami, Zahra Tayarani-Najaran . “Cytotoxic and apoptogenic properties of Sophora pachycarpa and Salvia chorassanica in human cancer cell lines, \_\_10<sup>th</sup> Scientific Congress of the Asia Pacific Association of Medical Toxicology. November 11-14. 2011

\* Presenting Author

### **Technical Skills:**

Cell culture

Cytotoxicity assay (MTT, WST,...),

Assays of apoptosis & necrosis

Protein extraction, DNA extraction

Western blotting

Flow cytometry:

Assay of mitochondrial membrane potential by flow cytometry

Assay of intracellular reactive oxygen species (ROS) by flow cytometry

Assay of cell cycle by flow cytometry

Assay of apoptosis by flow cytometry

HPLC ( Assay of ACE activity)

Assay of Nitric Oxide