



Mona Farhadi, Ph.D.

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## CURRICULUM VITAE

**Mona Farhadi (Ph.D.)**

**Associate Prof of Developmental Biology**

**Dept of Microbiology, Karaj Branch,**

**Islamic Azad University, Karaj, Iran.**

**Vice-Chancellor of (NRC), IUMS, Tehran, Iran**

**Editor in chief of Thritha Journal of Neuron**



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### Personal Data:

**Name & Surname:** Mona Farhadi

**Date & Place of Birth:** 21 September 1971, Tehran, Iran

**Gender:** Female

**Citizenship:** Iranian

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### Address:

- Dept of Microbiology, Karaj Branch, Islamic Azad University, Karaj, Iran
- Neuroscience Research Center (NRC), Iran University of Medical Sciences

### University Education:

- Ph.D, Developmental Biology, Science & Research campus Islamic Azad University, Tehran, Iran, 2002-2006
- M.Sc, Developmental Biology, North branch, Islamic Azad University, Tehran, Iran. 1998-2001
- B.Sc, Biology Islamic Azad University, Tehran, Iran, 1991-1995.

### Dissertation:

- Study of glucose-induced apoptosis in PC 12 cells: Role of Bax Protein (PhD thesis).



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- Separation X–Y bearing mouse spermatozoa by pure sperm discontinue gradient (M.Sc thesis).

### Academic Information

- Vice-Chancellor of (NRC), IUMS, Tehran, Iran
- Editor in chief of Thrita Journal
- Associate professor of cellular – developmental Biology
- Dept of Microbiology, Karaj Branch, Islamic Azad University, Karaj, Iran.

### Teaching Experiences:

Both theories and lab. Works: Undergraduate and postgraduate courses:

- Developmental Biology
- Vertebrate and invertebrate Organogenesis
- Histology
- Neurobiology
- Embryology
- Zoology
- Cellular & molecular biology
- Physiology
- Evolution
- cell culture

### Presentation & at meeting:

#### 1: International:

- Farhadi M, saeid kazemi, Reza samani, comparison of puresperm and albumin gradient s in separation X – Y bearing mouse spermatozoa , Middle east fertility society. Abstract book of Middle East fertility society, O- 28 November, 2006.
- Ali.M. sharifi, Syed hadi mousavi, **Mona farhadi**, Bager larijanii: Study of High glucose induced apoptosis in PC12 cell: Role of Bax protein; 2nd USM Penang International postgraduate Convention.18<sup>th</sup>-20<sup>th</sup> June 2008

#### 2: Local:

- Mona Farhadi, Kazem Parivar, Ali. M.Sharifi, sirus zeinali, Seyed Hadi Mousavi, .First International Iranian Congress on Biological Science. Azad University Karaj. Iran, December 14-15.2005.(Oral presentation)



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- Mona Farhadi, saeid kazemi, M. sadughi, .Separation X – Y bearing mouse spermatozoa by pure sperm discontinue gradient. First cellular and developmental Biology congress. September 12 – 15 2002. (Oral presentation)
- Farhadi M, Jameie S, Kouchmeshki A, Janzadeh A, Hayat P, Kerdari M. Effects of exogenous melatonin on Bax and P53 expression in substantia nigra of adult rat menopause First International and 9th National Biotechnology. Congress. Biotech congress.ir
- The 8th Basic & Clinical Neuroscience Congress, IUMS, Tehran, Iran 18-20 Dec 2019
- The 4th Iranian Congress of Neurorehabilitation, Hamedan University of Medical Sciences, Hamedan, Iran 10-12 Nov 2019
- The 12th Iranian Congress on Anatomical Sciences, Shahid Beheshti University of Medical Sciences, Tehran, Iran 4-6 May 2016
- 10th Annual International Addiction Sciences Congress, IUMS, Tehran, Iran September 14-16 2016

### Publication:

#### **Paper:**

1. Study of high glucose-induced apoptosis in PC12 cells: role of bax protein AM Sharifi, SH Mousavi, M Farhadi, B Larijani Journal of pharmacological sciences 104 (3), 258-262 93 2007
2. Carvacrol protects against 6-hydroxydopamine-induced neurotoxicity in in vivo and in vitro models of Parkinson's disease M Manouchehrabadi, M Farhadi, Z Azizi, A Torkaman-Boutorabi Neurotoxicity research 37 (1), 156-170 2020
3. Coenzyme Q10 influences on the levels of TNF- $\alpha$  and IL-10 and the ratio of ax/Bcl2 in a menopausal rat model following lumbar spinal cord injury S Hassanzadeh, SB Jameie, M Soleimani, M Farhadi, M Kerdari, ... Journal of Molecular Neuroscience 65 (2), 255-264 15 2018
4. Glioblastoma U-87MG tumour cells suppressed by ZnO folic acid-conjugated nanoparticles: an in vitro study ZH Marfavi, M Farhadi, SB Jameie, M Zahmatkeshan, V Pirhajati, ... Artificial cells, nanomedicine, and biotechnology 47 (1), 2783-2790 11 2019
5. Alteration of phospholipase C expression in rat visual cortical neurons by chronic blockade of orexin receptor 1 M Babasafari, M Kourosharami, J Behman, M Farhadi, A Komaki International Journal of Peptide Research and Therapeutics 26 (3), 1485-1491 2020



6. Study of the antioxidant effects of total and flavonoids extracts of *Cuscuta lehmannaiana* Bunge against on PC12 cells in vitro diabetic model. M Farhadi, SB Jameie, P Hayat Razi Journal of Medical Sciences 18 (90) 2011
7. Comparative Study of the Cytotoxic Effect of Silver Nanoparticles on Human Lymphocytes and HPB-ALL Cell Line: As an In Vitro Study Z Farahani, K Parivar, NH Roodbari, M Farhadi Iranian Red Crescent Medical Journal 22 (2) 3 2020
8.  $\beta$ -amyloid formation, memory, and learning decline following long-term ovariectomy and its inhibition by systemic administration of apigenin and  $\beta$ -estradiol SB Jameie, A Pirasteh, A Naseri, MS Jameie, M Farhadi, JF Babaei, ... Basic and Clinical Neuroscience 12 (3), 383 2021
9. Effects of total light deprivation on hippocampal neurogenesis and memory of adult rats: a sexual dimorphic study SB Jameie, M Mousavi, M Farhadi, F Mehraein, S Ababzadeh, ... Thrita 5 (3) 2016
10. Effects of Exogenous Estrogen Treatment on Hippocampal Neurogenesis of Diabetic Ovariectomized Rats B Jameie, S Mehdinejadani, M Farhadi, M Solimani, S Hassanzadeh, ... International Clinical Neurosciences Journal 3 (2), 99-108 2016
11. The adverse effects of methoxsalen on the oogenesis of Balb/C mice M Farhadi, E Fattahi, HM Kouchesfahani, A Shockravi, K Parivar Cell Journal (Yakhteh) 15 (4), 348 2 2014
12. A Systematic Review and Meta-analysis of the Role of Toll-like Receptor 9 in Alzheimer's Disease: The Protocol for a Systematic Review N Hosseini, S Nadjafi, L Janani, Z Faraji, B Ashtari, SB Jameie, M Farhadi, ... Thrita 10 (1) 2021
13. Berberine supplement and resistance training may ameliorate diazinon induced neural toxicity in rat hippocampus via the activation of the TrkB and ERK signaling pathway E Shakouri, MA Azarbayjani, SB Jameie, M Peeri, M Farhadi international Clinical Neuroscience Journal 8 (1), 14-21 2021
14. Effect of Physical Activity on Cognitive Function and Neurogenesis: Roles of BDNF and Oxidative Stress E Shakouri, MA Azarbayjani, SB Jameie, M Peeri, M Farhadi Thrita 9 (1) 2020



15. Simultaneous use of sensory stimulation and motor exercise improves the manual skills of educable children with mental retardation at preprimary and primary school levels R Mollajani, SS Taghavi, AF Hosseini, M Farhadi, M Jameie, M Jameie, ... Medical journal of the Islamic Republic of Iran 33, 148 2019
16. The Effect of Carvacrol on the Expression of P53 Protein in Testicular Tissue and Spermatogenesis of Rats Treated with Methamphetamine M Farhadi, B Jameie, P Honarkaran, R Mollajani, M Jameie, M Jameie Thritha 7 (2) 2018
17. In vitro Effects of alcoholic and aquatic Extract of *Physalis alkekengi* on proliferation of *Trichomonas vaginalis* A Jalil Azar, M Farhadi, P Torabzadeh, Z Momeni The Iranian Journal of Obstetrics, Gynecology and Infertility 19 (38), 48-56
18. Effects of 660nm Low-Level Laser Therapy on P2X3 Expression of Lumbar DRG of Adult Male Rats with Neuropathic Pain M Kerdari, GH Behnam, M Farhadi, M Masoumipoor, S Hassanzadeh, ... International Clinical Neurosciences Journal 3 (4), 193-200 2016
19. Effects of exogenous melatonin on Bax and P53 expression in substantia nigra of adult rat menopause model following pinealectomy M Farhadi, SB Jameie, A Kouchmeshki, A Janzadeh, P Hayat, M Kerdari 2013
20. Coenzyme Q10 reduces expression of apoptotic markers in adult rat nucleus accumbens dopaminergic neurons treated with ethamphetamine SB Jameie, A Kazemian, Z Sanadgol, S Asadzadeh Bayqara, MS Jameie, ... Molecular Biology Reports, 1-9 2022
21. Neurogenesis in the rat neonate's hippocampus with maternal short-term REM sleep deprivation restores by royal jelly treatment A hodaverdiloo, M Farhadi, M Jameie, SB Jameie, V Pirhajati Brain and Behavior 11 (12), e2423 2021
22. The protective effects of apigenin on OLN-93 cellular model of cerebral stroke S Miraei, M Farhadi, SB Jameie, S Najafie Physiology and Pharmacology 25 (3), 270-278 2021
23. Evaluation of the Ultrastructure and Expression of Desmoglein 2 in Breast Cancer: A Novel Biomarker M Mohammadhosseini, H Mirzaei, A Majd, M Farhadi, N Shayanfar 2021



24. Evaluation of Newly Synthesized Chalcone Derivatives Effect on PC12 Cells in in Vitro Model of The Parkinson's Disease As a Potential Treatment M Farhadi, Z Sanadgol, SB Jameie, E Kashani, NN Pesyan, R Kian, ... 2021
25. A Systematic Review and Meta-Analysis of the Role of Toll-Like Receptor 9 in Alzheimer's Disease: The Protocol for a Systematic N Hosseini, S Nadjafi, L Janani, Z Faraji, B Ashtari, SB Jameie, M Farhadi, ... 2021
26. Correlation Between Breast Tumor Size and Lymph Node Involvement in Patients Referring to the Pathology Department of Rasoul Akram Hospital in Iran M Mohammadhosseini, A Majd, H Mirzaei, M Farhadi, N Shayanfar Thrita 9 (2) 2020
27. Protective effect of CoQ10 and Artemisia sieberi combination on PC12 cells model of 6-hydroxydopamine induced toxicity SB Jameie, M Farhadi, K Gharibzad Physiology and Pharmacology, 257-267 2020
28. The Effect of Hydroalcoholic Rosmarinus Officinalis (Rosemary) on Memory Retention Deficit in Young Offspring Rat Induced by Maternal Sleep Deprivation FK Shahraki, M Nabiuni, M Farhadi, E Amini Pharmaceutical and Biomedical Research 2020
29. Expression of the apoptotic proteins in glioblastoma U87-MG cell line treated by Botulinum Toxin M Farhadi, S Moniri, M Jameie, N Hosseini, M Jameie, SB Jameie International Clinical Neuroscience Journal 7 (3), 132 2020
30. Neurotoxin Botulinum Inserts Apoptotic Effects on Certain Cancer Cell Lines Via Neural Niche of Tumors: A Molecular Study M Farhadi, M Jameie, B Derakhshanmehr, M Tahmasebi, M Soleimani, ... International Clinical Neurosciences Journal 7 (4), 190-195 2020
31. ZnO folic acid conjugated nano-particles induce apoptosis on glioblastoma U-87MG tumor cell: An in vitro study SB Jameie, M Farhadi, M Zahra, V Pirhajati, M Jameie, M Jameie IBRO Reports 6, S474 2019
32. Interaction of Curcumin with One Subunit of Monoamine Oxidase-B in Comparison with Safinamide: An In Silico Study S Nadjafi, N Hosseini, M Farhadi, F Khojasteh Thrita 8 (1) 2019
33. Comparison apoptotic effects of Iranian Artemis (Artemisia scoparia and sieberi) with Taxol on SK \_BR3 breast cancer cell line M FARHADI, KP Torabzadeh, MH



34. Histological investigation of the effects of nano titanium dioxide on the development of the first mandibular molar bud in NMRI mouse strain in vivo SS Tabatabaei Nia, M Farhadi, K Parivar *Nova Biologica Reperta* 4 (2), 137-146 2017
35. The adverse effects of the methoxsalen and ultraviolet A radiation on spermatogenesis in mice M Farhadi, HM Kouchesfahani, A Shockravi, M Foroozanfar, K Parivar *Iranian journal of reproductive medicine* 13 (8), 489 2015
36. The protective effects of apigenin on OLN-93 cellular model of cerebral stroke: A cellular model study S Miraei, M Farhadi, S Najafie *Physiology and Pharmacology*
37. Histological investigation of the effects of nano titanium dioxide on the development of the first mandibular molar bud in NMRI mouse strain in vivo SST Nia, M Farhadi, K Parivar
38. Thymol protects against 6-hydroxydopamine-induced neurotoxicity in in vivo and in vitro model of Parkinson's disease via inhibiting oxidative stress: Saeideh Nourmohammadi, Sanaz Yousefi, Mahboubeh Manouchehrabadi, Mona Farhadi, Zahra Azizi, Anahita Torkaman. Published: *BMC Complementary Medicine and Therapies* 10 February 2022.
39. Fluorescence inner filters of *Arthrospira platensis*: Novel perspective for precise fluorescence-based sensors
40. Illuminating RPMI-1640: Fluorescence dynamics and optical insights for biological applications A Rahmatpanahi, A Bavali, M Farhadi, S Bagheri-Khoulenjani, ...*Journal of Photochemistry and Photobiology A: Chemistry*, 116537
41. Hypercapnia as a Preventative Therapeutic Strategy: Unveiling the Neuroprotective Potential and Mechanisms: K Fazeli, SB Jameie, M Farhadi *Brain Disorders*, 100219
42. Improvement of ovarian function in a premature ovarian failure mouse model using *Vitex agnus-castus* extract Z Soleimany, F Siadat, M Farhadi, ZS Mirshaby, Z Sanadgol, H Eyni *JBRA Assisted Reproduction* 29 (1), 1172025
43. A study of sleep-wake cycle after transplantation of neural stem cells treated with gold nanoparticles in the suprachiasmatic nucleus lesion in the rat V Pirhajati Mahabadi, SM Amini, SB Jameie, M Farhadi, N Eslahi *Nanomedicine Research Journal* 9 (3), 308-316 2025





44. Fumaria vaillantii extract protects PC12 cells against neurotoxicity induced by 6-OHDA H Javid, R Rahimian, M Salimi, E Haghani-Samani, M Farhadi, ... Molecular Biology Reports 51 (1), 768 1 2024
45. Co-delivery of temozolomide and quercetin with folic acid-conjugated exosomes in glioblastoma treatment P Pourmasoumi, M Abdouss, M Farhadi, SB Jameie, HA Khonakdar Nanomedicine 19 (27), 2271-2287 7 2024
46. Temozolomide-Moringa loaded in adipose stem cell-derived exosomes inducing apoptosis in glioblastoma cells via the JAK2-STAT3 pathway: A molecular in vitro study P Pourmasoumi, M Abdouss, M Farhadi, SB Jameie, HA Khonakdar Iran. J. Chem. Chem. Eng.(IJCCE) Research Article Vol 43 (9) 2024
47. Stimuli-responsive Double Network CMC-based Hydrogel Nanocomposite with enhanced mechanical properties for proliferation and differentiation of PC12 M Kurdtabar, F Shafiei, T Amini, F Shahsavari, A Rezanejad Amirdehi, ... Polymer-Plastics Technology and Materials 63 (5), 489-503

### Books:

- Farhadi M., 2010 Histology for Biology & Paramedical Students, Islamic Azad University Saveh Branch.
- M. Farhadi, Parivar K., 2011 Cell, Tissue, Organ and Embryo culture (Theory and Laboratory Methods), Azad University, Science and Research Branch, Tehran
- M. Farhadi, Seyed behnamedin Jameie, 2020 Functional neuro anatomy

### Supervisor & advisor

#### *The most recent Supervisor*

1. The effect of oleuropin extraction of native species of olea europea L. on colon cancer Sw480 cell line
2. The study isolation of *Nitraria schoberi* L. population's alkaloids in Arak province
3. Extraction and investigation of changes in mineral of *Nitraria schoberi* species in different phenological stages
4. The study of flavonoid extract of (*Glycyrrhiza glabra*) in breast cancer cell line (Mcf-7)
5. Investigation of the effects of nano titanium dioxide on development of dental bud in NMRI mouse strain in vivo
6. Isolation and comparison of isoprenoids and Flavonoids leave extract of Neem (*Melia indica*) in phenological period and its effect on mouse germ cells
7. Comparative study of anti-tumor activity of silver, zinc and iron nanoparticles on human white blood cells and HPB- ALL leukemia in In vitro.
8. The protective effect of apigenin on





9. oxygen glucose deprivation (OGD)/reoxygenation on OLN-93 oligodendrocytes cell line
10. Therapeutic effects of folic acid conjugated ZnO nanoparticles on glioblastoma cell line
11. Histophysiology study of hippocampal neurogenesis of neonatal rats following mother sleep deprivation
12. The protective effect of curcumin on hippocampal region titanium nanoparticle treated rat brain
13. The study Effects of carvedilol on Haloperidol Induced Toxicity in PC12 Cell
14. Histological and behavioral investigation of NMDA receptors role on central effects of orexin in withdrawal syndrome in morphine dependent rats during development
15. Morphological and molecular evaluation of the effect of magnetic biocompatible carboxy methylcellulose hydrogel on PC12 and Astrocyte cells
16. The effect of new derivatives of chalcone on neurogenesis and learning of immobilized-treated rats
17. Beta-amyloid Formation, Memory And Learning Decline Following Long-term Ovariectomy Are Inhibited By Systemic Administration Of Apigenin And  $\beta$ -estradiol
18. The Effect of Coenzyme Q10 on Expression of Apoptotic Markers Induced by Methamphetamine in Rats' Nucleus Accumbens
19. Study of the effect of exosomes containing temozolomide and carmustine conjugated with folic acid on survival and proliferation of glioblastoma U87-MG cell line and astrocyte 1321 N1 and expression of apoptotic genes P53, caspase 3
20. The neuroprotective effects of carvedilol in PC12 cell culture of parkinson's disease
21. The effect of apigenin on hippocampus region and BDNF gene expression of neonatal rat with mother sleep deprivation
22. The protective effects of apigenin on OLN-93 cellular model of cerebral
23. Repeated administration of orexin into the thalamic paraventricular nucleus inhibits the development of morphine-induced analgesia
24. Study of the effect of Carvedilol on Haloperidol Induced Toxicity in PC-12 Cell line
25. Evaluation of the apoptotic and antiproliferative effect of alcoholic extract of *Coriandrum sativum* on glioblastoma and astrocyte cell lines
26. Evaluation of Acacia extract effect on Oogenesis and Uterus tissue of female rats treated with Carmustine
27. The combination effect of omega3 and cannabis sativa extract on cell proliferation and cb1 receptor expression cellular model of Parkinson's disease
28. The combination effect of *Musa sapientum* peel and *Salvia hispanica* seed extract on cell death and TRPV1 receptors expression in cellular model of Parkinson disease



### Workshops:

- 2004, Article writing workshop, Islamic Azad University, Saveh, Iran.
- 2005, Poster writing workshop, Islamic Azad University, Saveh, Iran.
- 2006, Education learning and Instruction, Islamic Azad University, Saveh, Iran.
- 2010, endnote workshop, Iran medical science University, NRC
- 2012, Spss workshop, Iran medical science University, NRC
- 2019, RT- PCR workshop, Iran medical science University, cellular and molecular research center

### Research interest:

- Reproductive biology
- Biology of the cancer
- CNS cancer: Glioblastoma cell line
- Neurodegenerative disease
- Herbal medicine
- Antioxidant therapy in different cell line
- Basic Neuroscience: Interaction between sex steroids and nervous system, Sensory Deprivation, Sleep & Biological Rhythms, Neural Tract Tracing, Neuronal Differentiation

### Techniques:

- IVF
- RT- PCR
- Cell culture
- Western blotting
- MTT assay
- Perfusion & Fixation.
- Tissue staining.
- Hoechst staining
- Sperm preparation
- Protein extraction
- DNA extraction

### REFERENCES:



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- **Professor Kazem Parivar**

Professor of Developmental Biology

Science & research Azad University Tehran. Iran

- **Professor Seyed Behnam Jameie**

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